MEDEX

MID-LEVEL HEALTH WORKER TRAINING MATERIALS

TRAINING PROGRAM DEVELOPMENT:

Training Process Manual

Curriculum Adaptation

Instructor Preparation

Program Management

02110

35 VOLUMES

"... A TOTAL TEACHING SYSTEM."
World Health Forum, Vol. 4, 1983

THE MEDEX PRIMARY HEALTH CARE SERIES

After completion of extensive field trials in Micronesia and in primary health care programs in Lesotho, Guyana, Pakistan, and Thailand, the methods and materials of the MEDEX technology have been published as The MEDEX Primary Health Care Series. The Series provides a systematic, practical, adaptable format for management and training in new or existing primary health care programs at all levels.

The 35-volume Series is organized into three major categories of Management Systems Development Materials, Mid-Level Health Worker Training Materials, and Community Health Worker Training Materials. The Series is appropriately balanced between promotive, preventive, and curative needs in primary health care.

The methods and materials of the MEDEX technology are suitable for national scale programs as well as smaller projects, and can be used in whole or in part as circumstances demand. One of the greatest strengths of the MEDEX technology is its flexibility and sensitivity to local conditions.

VOL.

1 The MEDEX Primary Health Care Series: An Overview

MANAGEMENT SYSTEMS DEVELOPMENT MATERIALS

The Systems Development Materials include a module for training management analysts, workbooks for use in analyzing management systems, and a manual for conducting district and national planning and management workshops.

2 *Student Text and Instructor's Manual*
Management Analysis Training Module

3 Drugs and Medical Supplies System Workbook
General Supplies System Workbook
Facilities and Equipment Maintenance System Workbook
Transportation System Workbook

4 Communication System Workbook
Personnel System Workbook
Finance System Workbook
Health Information System Workbook

5 District and National Planning and Management Workshops Manual

MID-LEVEL HEALTH WORKER TRAINING MATERIALS

The Mid-Level Health Worker Training Materials, which can be adapted to the specific needs of a country, include procedures and materials for preparation of instructors, evaluation of trainees, preparation for the community phase of training, and development of a continuing education program. The materials ensure that students acquire the skills and knowledge they will need to provide primary health care services, to manage a small health facility, and to train community health workers.

Training Program Development Manuals

6 Training Process Manual: Curriculum Adaptation, Instructor Preparation, Program Management

7 Continuing Education Manual

8 Training Evaluation Manual

Community Health Modules

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Meeting the Preventive Health Needs of the Community
Training and Supporting Community Health Workers

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Medical History
Physical Examination

General Clinical Modules

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Respiratory and Heart
Gastrointestinal
Genitourinary

16 *Student Text* **17** *Instructor's Manual*
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Dental, Eyes, Ears, Nose, and Throat

18, 19 *Student Text* **20** *Instructor's Manual*
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Other Common Problems

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Prenatal Care
Labor and Delivery
Postnatal Care

23 *Student Text* **24** *Instructor's Manual*
Problems of Women
Diseases of Infants and Children
Child Spacing

Health Center Management Modules

25 *Student Text* **26** *Instructor's Manual*
Working with the Health Team
Working with Support Systems

27 *Student Text and Instructor's Manual*
Supervising and Supporting Mid-Level Health Workers

Reference Manuals

28 Formulary
Diagnostic and Patient Care Guides

29 Patient Care Procedures

30 Health Center Operations

31 Community Health

COMMUNITY HEALTH WORKER TRAINING MATERIALS

The Community Health Worker Training Materials are designed for training literate and non-literate community health workers to carry out specific tasks. The teaching approach emphasizes dialogue between trainer and trainee. Other methods employed include role-play, demonstrations, stories, and extensive use of visual aids. The materials are geared to practical skill development through maximum interaction with the trainer. The workbooks emphasize promotive and preventive skills, but include selected basic curative skills as well.

The workbooks can be used to train new community health workers or to provide continuing education for existing community health workers. To prepare mid-level health workers to train community health workers, these workbooks are used along with the community health modules.

32 Introduction to Training
Clean Water and Clean Community
Prevention and Care of Diarrhea

33 Healthy Pregnancy
Feeding and Caring for Children

34 Some Common Health Problems
Tuberculosis and Leprosy
First Aid

35 Community Learning Materials:
Health Problems in the Community
Caring for Your Child
Caring for Your Sick Child
Clean Home and Clean Community
Illustrations for Training Community Health Workers

To order books or to obtain further information on The MEDEX Primary Health Care Series, write:
The MEDEX Group, University of Hawaii, 1833 Kalakaua Avenue, Suite 700, Honolulu, Hawaii 96815-1561, U.S.A.

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TRAINING PROCESS MANUAL

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A more detailed list of acknowledgments can be found in the *Overview* to the MEDEX Primary Health Care Series.

The MEDEX Primary Health Care Series

HEALTH CELL
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TRAINING PROCESS MANUAL

Curriculum Adaptation
Instructor Preparation
Program Management

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Health Manpower Development Staff
John A. Burns School of Medicine
University of Hawaii, Honolulu, Hawaii, U.S.A.

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Introduction

The MEDEX Primary Health Care Series is designed to train mid-level and community health workers and to strengthen the management systems needed to support the delivery of primary health care services at the local level. You have been selected to manage a training program in your country based on the MEDEX Primary Health Care Series. As program manager, you will be responsible for establishing, preparing for, and conducting the training program.

The foundation of the MEDEX Primary Health Care Series is a set of prototype training materials called modules. The modules comprise the training curriculum for a competency-based training program that prepares both mid-level and community health workers for their job responsibilities. The content of the prototype training modules was derived from an analysis of the health needs that are common to rural communities in developing countries. More specifically, the content was derived from a representative group of communities and therefore provides a base of information that can be adapted to a range of settings. The resulting curriculum contains the essential knowledge and skills that a health worker should possess in order to provide preventive, promotive, and curative services to community members.

In their present form, the information and activities described in each module provide the substantive framework for the development of a competency-based training program. However, in order to complete the framework, you must direct and carry out three major tasks. You must:

Make policy decisions
Adapt the curriculum to reflect existing health conditions and prepare the instructors who will teach the curriculum
Establish a system for managing the training program

This manual will guide you in carrying out these tasks.

This manual contains eight sections. The sections cover the range of activities that you will carry out in your job as program manager. The process requires the help of many people in the health care system. By involving many people, the training program will reflect a collective commitment to health in the country. The sections in the manual can be grouped according to the three major tasks that you will direct and carry out.

Making Policy Decisions

You will be training health workers to meet the needs that have been identified at the community level. Decisions on how to plan the training program to meet these needs are made at the policy level. Section 1 prepares you to describe the training program to policy level decision makers. Section 2 prepares you to work with policy level decision makers to assess the existing primary health care system and to establish guidelines for the curriculum adaptation based on this assessment.

Adapting the Curriculum and Preparing the Instructors

Once the policy level decisions have been made, you can begin to plan the curriculum adaptation. Section 3 describes how to select an adaptation approach and an adaptation team. Adaptation of the prototype curriculum takes place in two stages. The first stage is the adaptation of the health workers' job requirements, discussed in Section 4, and the adaptation of the students' learning materials, discussed in Section 5. The second stage is the adaptation of the instructional materials and the preparation of the instructors who will use the materials. These activities are discussed in Section 7. Section 6 prepares you to develop the training schedule that will direct the adaptation of the instructional materials.

Managing the Training Program

You carry out the activities that relate to managing the training program simultaneously with the decision-making activities discussed in Sections 1 and 2 and the curriculum adaptation and instructor preparation activities discussed in Sections 3 through 7. These include establishing, preparing for, and conducting the training program. Section 8 prepares you to carry out these activities.

Each section in the manual has a standard format that consists of a program manager's guide, a narrative, and activities. The program manager's guide introduces the section. It includes the objectives for the section, a summary of the knowledge prerequisites for achieving the objectives, a summary of the activities included in the section, a rationale for the section, and a program manager's note. The narrative presents the knowledge content that is required to meet the objectives for the section. The information in the narrative will:

- Enhance your understanding of the steps in curriculum adaptation and program development
- Help you prepare talks and discussion sessions to acquaint others in the health care system with program development activities
- Help you prepare staff members for their program responsibilities

Each section also includes activities that you will be expected to direct and coordinate. The activities are designed to help you achieve the objectives for that section of the manual.

SECTION 1

Introduction to Competency-Based Training

PROGRAM MANAGER'S GUIDE

OBJECTIVE

After completing the activity in this section, you should be able to prepare a presentation and conduct a discussion that includes:

1. The advantages of competency-based training in preparing mid-level and community health workers
2. The steps in adapting a competency-based training curriculum and preparing the instructors who will teach the curriculum
3. The format and content of the prototype training curriculum
4. The design of the prototype training program

To achieve this objective, you must know:

1. The differences between a competency-based training program and more conventional training approaches
2. The process to be followed when adapting a competency-based training curriculum and preparing the instructors who will teach the curriculum

ACTIVITIES

1. Review the description of competency-based training presented in Section 1.
2. Review the mid-level health worker training materials included in the MEDEX Primary Health Care Series.
3. Prepare a one-hour presentation and discussion session on the competency-based training approach for mid-level and community health workers.

RATIONALE

The MEDEX Primary Health Care Series is the basis of a program designed to train mid-level and community health workers to provide primary health care services and to strengthen the management systems needed to support primary health care services at the local level. The MEDEX Primary Health Care Series has been field tested in five countries in different parts of the world. However, since the program is derived from many situations, it fits no one situation perfectly. The

materials are prototypes that are designed to be adapted. Part of your responsibility as program manager will be to coordinate and guide the adaptation of the prototype training curriculum and to prepare the instructors who will teach the curriculum. To do this, you need to understand the philosophy of the curriculum and the process of its development. This section explains the competency-based approach to training health workers and the steps involved in adapting a competency-based curriculum and preparing instructors. It also introduces you to the format, content, and design of the prototype curriculum.

PROGRAM MANAGER'S NOTE

IF YOU ASK REPRESENTATIVES FROM THE HEALTH CARE SYSTEM TO TAKE PART IN DEFINING AND CREATING NEW PROGRAMS, YOU WILL INCREASE THEIR ACCEPTANCE OF THE CHANGES THAT RESULT.

1.1 WHAT IS COMPETENCY-BASED TRAINING?

The MEDEX Primary Health Care Series uses a competency-based approach to training. Competency-based training focuses on the development of essential, job-related knowledge and skills. This is accomplished by:

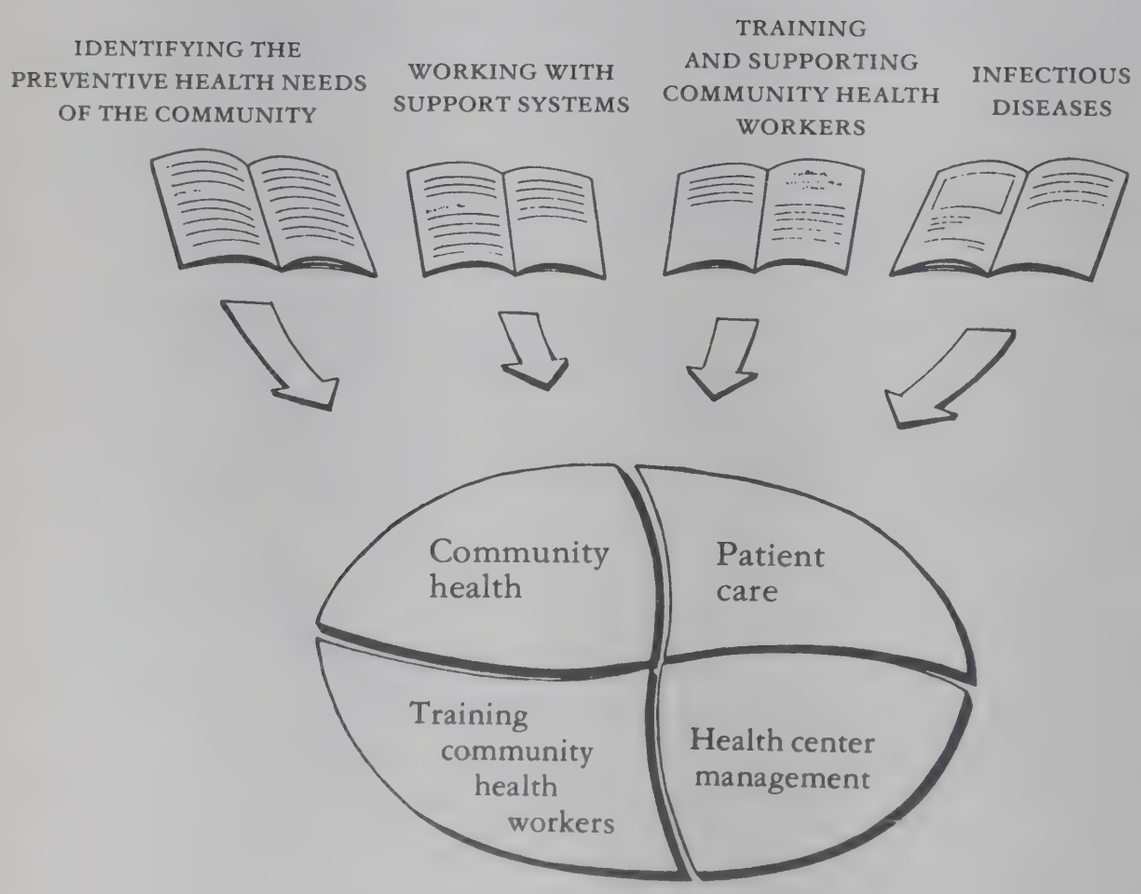
Defining clear objectives before training begins

Informing the students of the training objectives

Providing learning opportunities that help the students acquire job-related knowledge and skills

Routinely evaluating and correcting the performance of each student until he perfects his knowledge and skills

Competency-based training differs from more conventional training approaches in both its content and its evaluation process. The content of a competency-based training curriculum relates directly to job performance.



THE CONTENT OF A COMPETENCY-BASED TRAINING CURRICULUM RELATES DIRECTLY TO JOB PERFORMANCE

The skills and knowledge taught must help the graduate perform his job. In contrast, conventional training approaches are designed to establish a broad knowledge base. The student draws on this knowledge, or a portion of it, to do his job. The knowledge may or may not be relevant to the job requirements.

In a competency-based training program, student evaluation is based on training objectives. The student knows the objectives of training as he begins each sequence of the program. The objectives guide the student through the training process. If a student meets the objectives, he goes on to the next phase of training. If he does not meet the objectives, he practices further and is evaluated again. Some students achieve the training objectives sooner than others. No student completes the program, however, until he achieves the objectives. In more conventional training programs, the student usually is responsible for guessing the important things he should learn. The student becomes adept at learning a subject to please his instructor, not to prepare for a job. Evaluation in conventional programs is usually terminal. The student needs to pass an examination at the end of the training sequence. If he does not pass, he does not continue in the training program. There usually are no built-in means of remediation.

1.2 ADAPTING A COMPETENCY-BASED TRAINING CURRICULUM

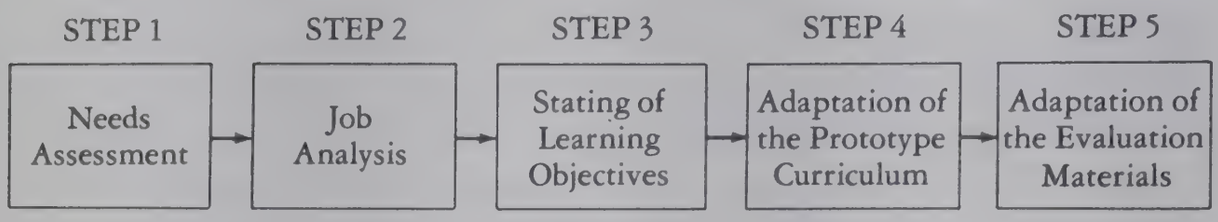
As a program manager, you have been assigned the responsibility of developing a competency-based training program for mid-level and community health workers. Developing a competency-based training program involves: planning the program, implementing your plan, and evaluating the program to find out how good the plan was and what needs to be changed to make it better.

You are now at the planning stage. You must review the administrative and technical decisions made at the policy level that will affect your program. You must consider the administrative decisions that will affect who you are going to train, how long they will be trained, what they will be trained to do, and where they will work after they are trained. You must consider the technical decisions about the specifics of the health workers' jobs and the resources the workers will have to do their jobs. You must decide who is going to help you prepare the curriculum for teaching and who is going to help you teach. You must organize the management, administration, and operation of the program.

Your objective at this time is to plan for the adaptation of the prototype competency-based training curriculum and the preparation of the instructors who will teach the curriculum. Curriculum adaptation and instructor

preparation follow a logical five-step process: needs assessment, job analysis, stating of learning objectives, adaptation of the prototype curriculum, and adaptation of the evaluation materials.

THE FIVE STEPS FOR PLANNING CURRICULUM ADAPTATION AND INSTRUCTOR PREPARATION



Needs Assessment

A competency-based training program is designed to respond to the health needs of the communities that the program will serve. A needs assessment provides you with an understanding of those needs. Health needs are assessed at the community level. Those who offer health services at the community level provide policy level decision makers with information about health needs. You must work with these policy level decision makers to determine if the goals of the country's health plan respond to the health needs of the communities that your program will serve.

You must determine if there are gaps between the goals of your country's health plan and the existing health conditions. For example, suppose statistical information or information from rural health workers indicates that children in rural communities are dying from diarrhea, malnutrition, and a lack of immunizations. However, the country's main rural health goal is to reduce deaths caused by malaria. A gap would exist if the goal of improving the health of children in rural communities did not include attention to diarrhea, malnutrition, and a lack of immunizations.

Next, you must determine what the gaps are between the goals of your country's health plan and the prototype curriculum. The prototype curriculum reflects a sample of common health needs that have been identified in a variety of developing countries. The curriculum pays equal attention to health promotion, disease prevention, and the curative needs of the community, with particular emphasis on the care of women and children. You must determine if your country's health goals balance the promotive, preventive, and curative health needs of the community. If they do not, should they? If they should, with whom at the policy level must you discuss and resolve this issue?

In Section 2 you will review the policy level administrative and technical decisions that you will want to consider and address as you plan your program.

Job Analysis

A job analysis outlines the tasks that health workers should carry out based on the needs you have identified. To analyze a job you first define the tasks that are required for the job. Next you identify the work requirements for completing each task. These work requirements are called duties. Then you define the training requirements for each duty. These training requirements are called skills and knowledge. Skills are what the student must learn to do so he can perform his new job. Knowledge is what the student must know before he can start practicing and perfecting new skills.

The work requirements and training requirements for each job task are summarized in a task analysis table. The series of task analysis tables in the prototype curriculum outlines the tasks that health workers must carry out. This ensures that the training program develops only those knowledge and skills that are essential for the workers' jobs. A job analysis defines and limits the content of the training program. You will be responsible for ensuring that the task analysis tables are adapted to accurately reflect the job requirements of the health workers whom you will be training.

TASK ANALYSIS TABLE

Diagnosing, treating, and preventing respiratory and heart problems

Work Requirements *DUTIES*	Training Requirements *SKILLS*	 *KNOWLEDGE*
The MLHW will:	The MLHW trainee will show that he is able to:	The MLHW trainee will show that he knows:
1. Take and record a medical history of all patients presenting with a respiratory or heart complaint	1.1 Record a patient's presenting complaint	
	1.2 Question a patient about his respiratory or heart problem	1.2.1 How to question a patient about his respiratory or heart problem 1.2.2 Information needed to complete the medical history of a patient's respiratory problem: Whether the patient's condition improves or worsens during the day or night Location, radiation, pattern, and quality of chest pain Whether the patient has a cough and whether his sputum is clear, yellow, green, or bloody Whether the patient has a fever

In Section 4 you will learn the step-by-step process for adapting task analysis tables. This adaptation activity prepares you for the next planning step: stating of learning objectives.

Stating of Learning Objectives

You convert the skills and knowledge identified in the task analysis tables into learning objectives. Learning objectives define the exact behaviors that the students must demonstrate to indicate that they are prepared for their jobs. You must adapt the objectives in the prototype curriculum to reflect the skills and knowledge requirements in your adapted task analysis tables. Your new objectives will be the basis of your plan for adapting the rest of the curriculum. In Section 5 you will learn more about the requirements for adapting and preparing learning objectives.

Adaptation of the Prototype Curriculum

Once you have adapted the objectives, you are ready to adapt the rest of the content of the prototype curriculum. The curriculum adaptation is a two-stage process. First you adapt the student materials to reflect your objectives. This is discussed in Section 5. Then you adapt the instructor's materials. This is discussed in Section 7. Although the evaluation tools are also adapted during this second stage, it is listed as the fifth step in your planning because it requires special attention.

Adaptation of the Evaluation Materials

One of the most important and unique aspects of a competency-based training program is its evaluation process. The evaluation process is designed to obtain and use information about student performance so that decisions can be made about the daily training routine and about future training efforts. The information gathered about the performance of students is used to:

- Assess the progress of each student and inform the students of their progress toward performance targets
- Assess the effectiveness of teaching methods and materials
- Identify the most effective methods, materials, and instructors
- Determine changes in the curriculum needed to meet the needs of the communities served

During the second stage of the curriculum adaptation activities, you will be helping the future instructors of the students adapt the instructor's manuals. You will also be introducing them to the principles of the evaluation system. Understanding these principles will facilitate the adaptation of the evaluation tools. Adaptation of the evaluation materials is discussed in Section 7.

As you progress through this manual you will be formulating your plan for how you are going to develop a competency-based training program that will meet the needs of your country. You will find that evaluation does not happen at the last step. Throughout the process you will be evaluating the merits of the competency-based training approach. You will be evaluating your ability to reach decisions about assessed needs. You will be evaluating the usefulness of the job analysis process in helping you define the tasks of the health workers whom you will train. You will be evaluating the prototype curriculum as you work with others to adapt the curriculum. You will be evaluating yourself and the schedule that you will devise. Throughout this process you will be making important management, administration, and operations decisions. All of these activities will directly or indirectly affect the development of your competency-based training program.

1.3 FORMAT OF THE PROTOTYPE CURRICULUM

The training materials for mid-level health workers are twenty-two teaching and learning packages called modules. Reference manuals and evaluation materials supplement the modules. The training materials for community health workers are workbooks and community learning materials.

Mid-Level Health Worker Curriculum

Each module in the prototype curriculum for mid-level health workers consists of a set of learning materials for the student called the student text and a set of teaching materials for the instructor called the instructor's manual. The student text and the instructor's manual together guide the daily training activities. The format of these materials is consistent among the modules.

a. Student text

The student text for each module begins with a task analysis table and a student's schedule. The task analysis table shows the student the relationship between the knowledge and skills that he is to learn in the module and the duties that will make up his job. The schedule details the training sequence for the module.

A series of teaching units make up the remainder of the student text. Each unit consists of a student guide and a narrative. A student guide introduces each teaching unit. The student guide outlines the objectives and activities for that unit. It informs the students about the ex-

pectations of the unit and helps them organize their learning. The narrative contains all the essential information that the students need to understand the topic of the unit.

Review questions and exercises follow most units. The review activities highlight the objectives of the unit. They give students an opportunity to reflect on the content of the unit and organize the information in the unit according to its importance.

Some units also contain skill checklists. Each skill checklist outlines the steps for performing a procedure. The students use the skill checklists as a guide when they practice medical history, physical examination, patient care, and community health procedures.

b. Instructor's manual

Teaching plans in the instructor's manual guide the daily instructional process. Each plan states the learning objectives for the session, describes the teaching methods, lists materials to be used in the session, and describes the specific learning activities to be conducted during the session.

Answers to review questions and exercises and a training schedule of daily learning activities are also included in each instructor's manual.

c. Reference manuals

Five reference manuals supplement the modules. The manuals are given to the students along with the modules during training. After graduation, these same manuals are convenient guides to the methods and procedures that are a part of the mid-level health worker's job.

d. Evaluation materials

Every module has a corresponding set of evaluation materials to help assess the student's acquisition of knowledge and skills. The evaluation materials include pretests and posttests to assess knowledge, and evaluation log books to assess student competence. The entire set of evaluation materials is compiled in the Training Evaluation Manual, a reference source for the instructors and supervisors.

Community Health Worker Curriculum

Eight prototype community health worker workbooks and a series of community learning materials make up the community health worker curriculum. The workbooks are designed to be taught in three or more training courses using two or three workbooks during each course. The community health worker curriculum is carried out over a one year period. Community learning materials include drawings and stories designed to support the training of community health workers.

The format of the prototype training curriculum for mid-level and community health workers is discussed in more detail in Section 5.

1.4 CONTENT OF THE PROTOTYPE CURRICULUM

The twenty-two modules for mid-level health workers and the eight workbooks for community health workers contain the information, activities, and guidelines for the training program. The modules and workbooks are grouped in categories according to their subjects.

COMMUNITY HEALTH MODULES

- Identifying the Preventive Health Needs of the Community
- Meeting the Preventive Health Needs of the Community
- Training and Supporting Community Health Workers

COMMUNITY HEALTH WORKER WORKBOOKS

- Introduction to Training
- Clean Water and Clean Community
- Prevention and Care of Diarrhea
- Healthy Pregnancy
- Feeding and Caring for Children
- Some Common Health Problems
- Tuberculosis and Leprosy
- First Aid

BASIC CLINICAL KNOWLEDGE AND SKILLS MODULES

- Anatomy and Physiology
- Medical History
- Physical Examination

GENERAL CLINICAL MODULES

- Respiratory and Heart
- Gastrointestinal
- Genitourinary
- Skin
- Dental, Eyes, Ears, Nose, and Throat
- Infectious Diseases
- Other Common Problems
- Trauma and Emergency

MATERNAL AND CHILD HEALTH MODULES

- Prenatal Care
- Labor and Delivery

Postnatal Care
Problems of Women
Diseases of Infants and Children
Child Spacing

HEALTH CENTER MANAGEMENT MODULES
Working with the Health Team
Working with Support Systems

The five reference manuals are:

Formulary
Diagnostic and Patient Care Guides
Patient Care Procedures
Health Center Operations
Community Health

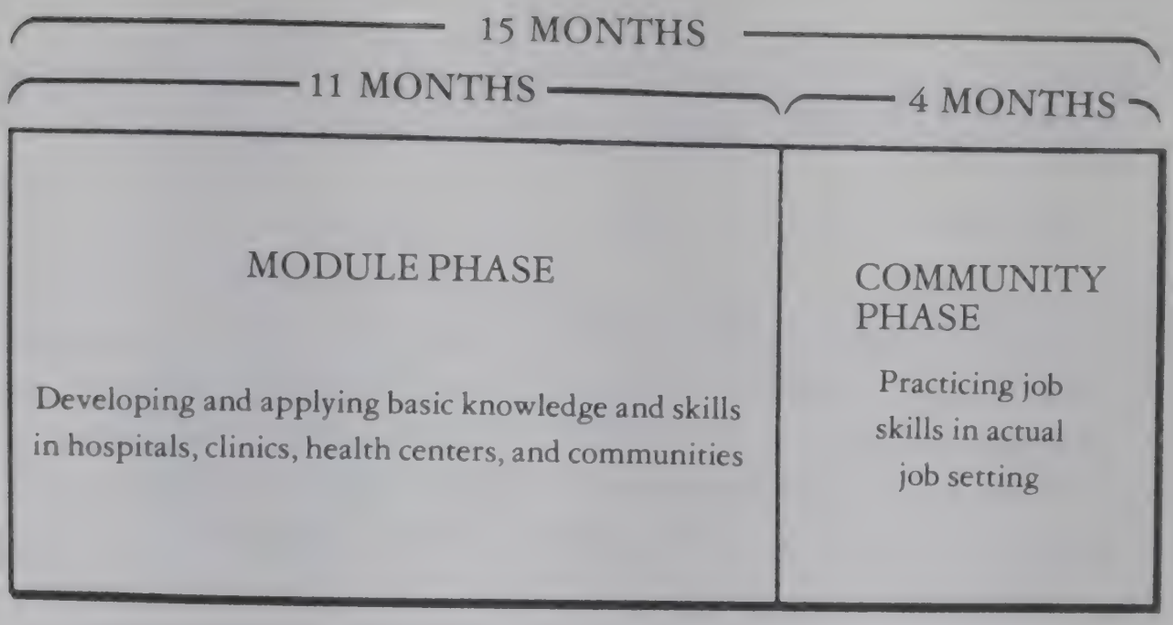
The set of basic training modules is further supplemented with materials for continuing education. The Continuing Education Manual provides instructors and supervisors with guidelines for planning and implementing a continuing education program for mid-level health workers. After graduation, some mid-level health workers will be selected to receive continuing education that will prepare them to function as supervisors. The Supervising and Supporting Mid-Level Health Workers module prepares these mid-level health workers for this part of their job.

1.5 DESIGN OF THE PROTOTYPE TRAINING PROGRAM

The fifteen-month prototype training program guides the students through a series of experiences that progressively build competence. The program starts by developing basic knowledge and skills. An intermediate stage of learning enables the students to increase their competence as they practice their skills. In the final part of the process, the students are required to apply their skills in a situation that closely resembles their future work environment. This sequence reflects two essential learning principles of the competency-based training program:

Learning is most effective when students develop skills progressively from simple to complex

Appropriate and sufficient practice increases the rate of learning


15 MONTHS
11 MONTHS
4 MONTHS
MODULE PHASE
Developing and applying basic knowledge and skills in hospitals, clinics, health centers, and communities
COMMUNITY PHASE
Practicing job skills in actual job setting

The competency-based training program is divided into two phases that apply these basic learning principles. During an eleven-month module phase, the students develop basic knowledge and skills and have an opportunity to apply the knowledge and skills in hospitals, clinics, health centers, and communities. During a four-month community phase, the students integrate their earlier learning experiences and apply their skills in a health center and a community. In combination, the two phases enable the students to develop a set of job skills by taking part in supervised learning experiences.

Students are routinely evaluated throughout the program. Three levels of evaluation measure student competence. Level I measures the basic knowledge and skills that are required in community health, general clinical care, maternal and child health, and health center management. Level II measures more complex skills and procedures. Level III measures whether the student is competent to perform the actual work required in each of these subject areas.

ACTIVITY 1

Introducing the Competency-Based Training Program to Potential Members of the Adaptation Team

New training programs often change roles and relationships among those involved in carrying out the program and those whom the program affects. The anticipation of changing roles can foster anxiety among program personnel that can block the development of new programs. Even when a program has the formal approval of the health care system, the informal network for the system can create very effective barriers to change. Although this applies to all training efforts, it is especially true for competency-based training programs. Conventional training programs are often short-term efforts that rarely involve systematic change. Therefore, little resistance ever surfaces. In contrast, competency-based training programs can initiate widespread change in the health care system that can affect personnel at all levels.

To create support for your new program, you must anticipate resistance to change and initiate a strategy to cope with such resistance. You will prepare and make a one-hour presentation to potential members of the adaptation team. The purpose of the presentation is to share information about competency-based training and to identify people who are willing and qualified to take part in developing and implementing the primary health care training program for mid-level and community health workers. Making a presentation to explain the program will minimize anxiety and gain needed support and participation. Involving others in the development process will ensure that your training program reflects community needs and the existing structure of the health care system. Your presentation should include:

The advantages of competency-based training in preparing mid-level and community health workers

The steps in adapting a competency-based training curriculum

The format and content of the prototype training curriculum

The design of the prototype training program

The three basic steps in making a presentation are:

1. TELL THE AUDIENCE WHAT YOU ARE GOING TO SAY
2. SAY IT
3. TELL THEM WHAT YOU SAID

Follow these same steps to organize your presentation.

1. Tell the audience what you are going to say.
   a. Explain the purpose and value of the information you are presenting.
   b. Give an overview of the content. Use either an outline format or an objective format.

      An outline format identifies the major content and organization of the presentation. The major advantage of this format is that it helps both you and the audience stay on target. An objective format states what the audience will know or be able to do after the presentation. This format establishes expectations for the audience and helps them see the usefulness of the presentation.

OUTLINE FORMAT

I. Introduction to competency-based training
II. Steps in adapting a competency-based training curriculum
III. Characteristics of the prototype training materials

OBJECTIVE FORMAT

At the conclusion of the presentation the audience will be able to describe:

1. The ways in which a competency-based training program differs from more conventional training approaches
2. The process to be followed when adapting a competency-based training curriculum
3. The format, content, and instructional approach of the prototype training materials for mid-level and community health workers

   c. Present a written summary of the content. Use one of these techniques:

      Overhead projection
      Chalkboard
      Handouts
      Flipcharts

See the sample handouts included in at the end of this discussion.

2. Say it.
   a. Find out what the audience already knows about the topic.
   b. Present the facts. Make your presentation clear and concise. Use visual aids to clarify points and present information. People remember more of what you say when you show them as well as tell them.
   c. Give the audience an opportunity to take part in the presentation. Use one of the following techniques:

      Ask questions to find out if the audience is following the presentation

      Encourage the audience to ask questions to clarify their understanding of the topic

      Ask the audience to complete a questionnaire about the presentation

      Ask the audience to take part in a short discussion or exercise related to the topic

      Remember that learning increases when people are actively involved. People will remember:

      10% of what they HEAR
      50% of what they SEE and HEAR
      90% of what they SEE, HEAR, and DO

3. Tell them what you said. Summarize the content of your presentation. Use one of these techniques:
   a. Repeat the main points covered during the presentation.
   b. Question the audience about the main topics.
   c. Ask members of the audience to summarize the discussions or exercises.

You must also evaluate your presentation. Ask for the audience's response to a list of questions. Distribute the questions as a handout, or read them aloud. Use the Worksheet for Activity 1 as a guide.

WORKSHEET FOR ACTIVITY 1

Introducing the Competency-Based Training Program to Potential Members of the Adaptation Team

Use these questions to evaluate your presentation. Ask the audience to respond to the questions and support their views.

Content

Were the objectives clearly stated?

Did the presentation include all of the information covered by the objectives?

Was the information useful to you?

Methods

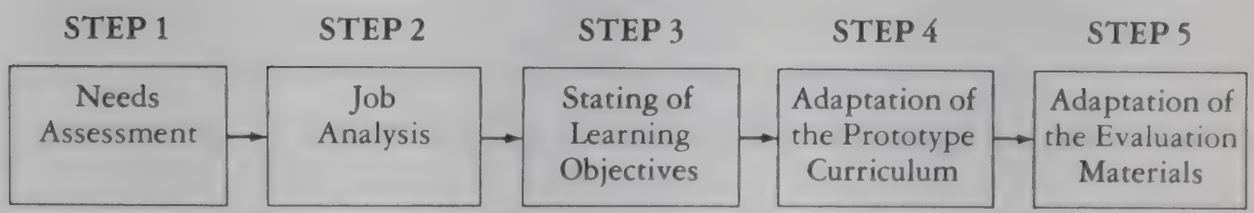
Did the speaker find out what you already knew about the topic?

Did you have an opportunity to ask questions or discuss the topic?

Did you have adequate opportunity to participate?

SAMPLE HANDOUT A FOR ACTIVITY 1

THE FIVE STEPS FOR PLANNING CURRICULUM ADAPTATION AND INSTRUCTOR PREPARATION



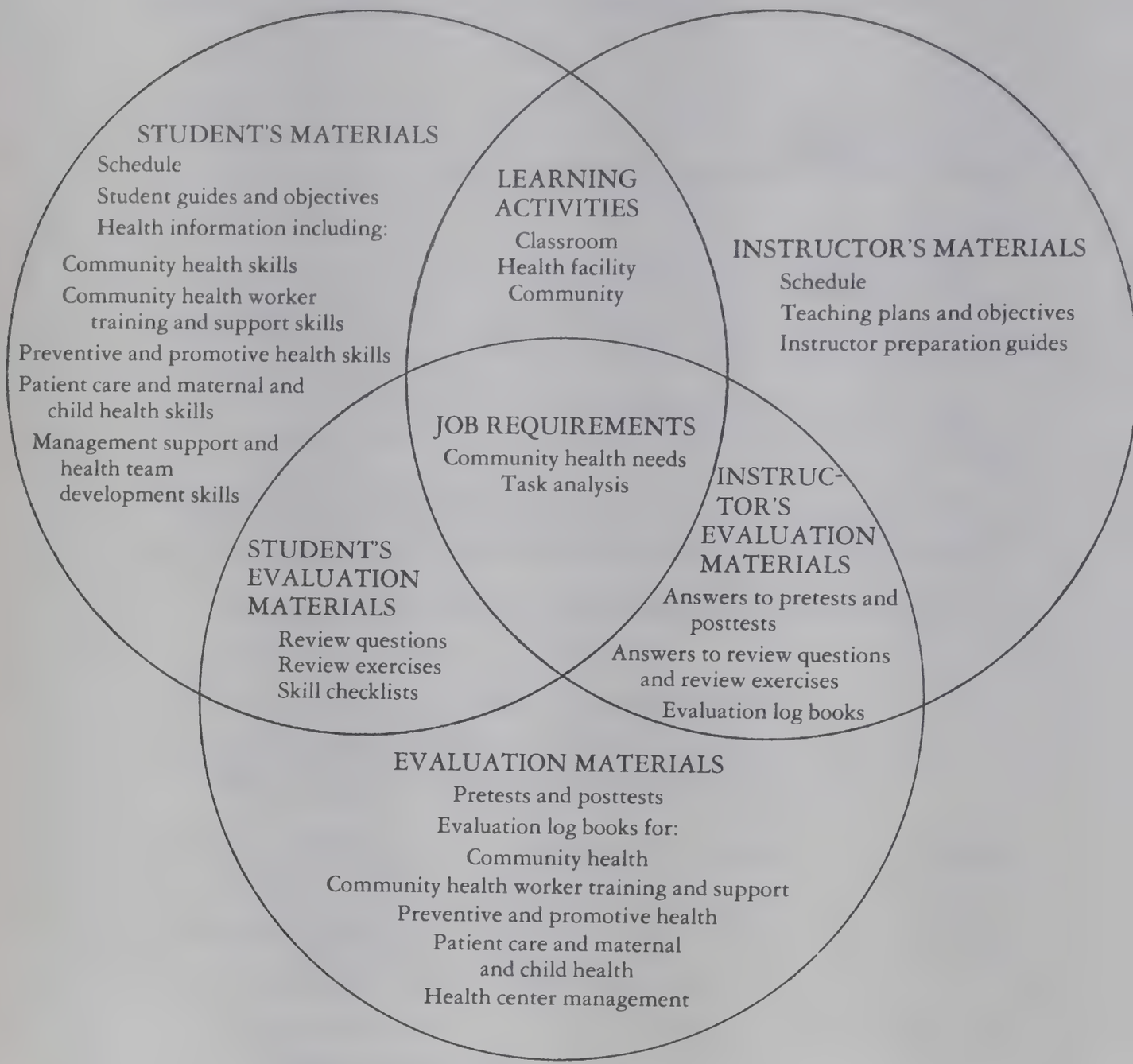
SAMPLE HANDOUT B FOR ACTIVITY 1

DESIGN OF THE TRAINING PROGRAM

	MODULE PHASE		COMMUNITY PHASE
Time	11 months		4 months
Learning	*Basic* Knowledge and skills	*Intermediate* Knowledge and skills integration	*Advanced* Knowledge and skills application
Evaluation	LEVEL I → LEVEL II →		LEVEL III →

SAMPLE HANDOUT C FOR ACTIVITY 1

FORMAT OF THE PROTOTYPE CURRICULUM



SECTION 2

Making Policy Decisions to Guide the Curriculum Adaptation

PROGRAM MANAGER'S GUIDE

OBJECTIVES

After completing the activities in this section, you should be able to:

1. Compare the characteristics of the country's primary health care system with those of the system on which the prototype curriculum is based
2. Develop guidelines for selecting mid-level and community health worker students to meet community needs

To achieve these objectives, you must know:

1. The concept of primary health care and the roles of mid-level and community health workers
2. The competency-based approach to training mid-level and community health workers including:

   The characteristics of the prototype health care system
   The characteristics of the prototype training curriculum

ACTIVITIES

1. Review Section 2.
2. Prepare a chart that outlines the characteristics of the country's primary health care system.
3. Define the roles and responsibilities of the health workers in the system.
4. Define the management support requirements for mid-level and community health workers.
5. Establish guidelines for student selection.

RATIONALE

After a commitment is made to adapt the prototype training curriculum, you will guide the adaptation process. Curriculum adaptation is a process of review and revision. First, based on the community needs that have been identified, you compare the general characteristics of the existing primary health care system to the system on which the prototype is based. You identify the main differences between the two health care systems and the need for changes in organization and

structure. The differences are resolved at the policy level. Then, you adapt the content of the training curriculum to reflect the country's needs, resources, and administrative structure. This approach of adapting the content of the training curriculum to reflect the needs and requirements of the health care system:

- Prepares workers to provide communities with needed health services
- Eliminates duplication in the jobs of health workers
- Reduces misunderstandings about roles that can interfere with health team development
- Saves time and money that are often spent to train a variety of workers to perform the same task
- Stimulates health officials to initiate more comprehensive planning for training and using health workers

This section prepares you to work with policy level decision makers to assess the existing primary health care system and to establish guidelines for the curriculum adaptation based on this assessment.

PROGRAM MANAGER'S NOTE

TO ADAPT THE PROTOTYPE TRAINING CURRICULUM, YOU NEED TO:
UNDERSTAND YOUR PRIMARY HEALTH CARE SYSTEM
KNOW THE CHARACTERISTICS OF THE STUDENTS THAT YOU WILL TRAIN

2.1 ASSESSING THE NEEDS AND REQUIREMENTS FOR PRIMARY HEALTH CARE SERVICES

A competency-based training curriculum is designed to respond to the health needs of the communities that the program will serve. Before you can adapt the curriculum you must review the health needs that have been identified at the community level. Decisions about how best to meet the needs are made at the policy level of the health administration. Therefore, your first step in organizing a competency-based program to train mid-level and community health workers is to organize a group of decision makers in the health administration. Together you must determine if you can meet community needs within the existing structure and goals of the health system. You must identify any gaps between the country's health goals and existing health conditions. You must compare the country's health plan with the asssumptions of the prototype system.

During this review, you must look at two types of policy issues: administrative issues and technical issues.

Administrative Policy Issues

Important administrative issues commonly surface during the needs assessment. Personnel policies related to salary scales, career status and mobility, health team and supervisory relationships, and work conditions are often discussed. Management directives about drug distribution and ordering, transportation, and continuing education and certification procedures frequently arise. The issue of allowing mid-level health workers to be away from their health centers and in the community two days each week also needs to be discussed. These policy decisions can have a major impact on the content of the curriculum.

You will need to clarify many of the policy decisions about these basic administrative issues before you can adapt the curriculum. Other issues such as levels of pay may also be discussed, but the curriculum adaptation is not affected if resolution is delayed. You should initiate discussion on personnel and other health policy issues as early as possible since decisions on these issues often take months to formulate and even longer to implement.

You will meet with people who have the authority to establish policies related to administrative issues affecting the health system. These people might include:

Permanent secretary
Chief medical officer
Chief nursing officer
Community development officer
Health education director
Chief statistical officer
Principal personnel officer
Director of maternal and child health services

Technical Policy Issues

You must also establish policies related to the technical aspects of the training program. The technical issues include decisions about drug dispensing responsibilities, patient care and referral procedures, supervision, and relationships among team members at the health center. Administrators who have responsibilities as technical advisors usually make these types of decisions. Examples include the chief medical officer and the division directors for specialized areas such as maternal and child health and public health nursing.

You can contribute to the decision-making process by:

Identifying the issues that require policy decisions

Identifying the policy makers who can take responsibility for those decisions

Creating a forum for discussions and decision-making

Promoting decisions that are consistent with the development of an effective health team

These decisions will guide the curriculum adaptation process. First, however, you and the policy makers with whom you meet must understand the assumptions of the prototype curriculum.

2.2 ASSUMPTIONS OF THE PROTOTYPE CURRICULUM

Every country has different problems and different needs. In order to review the prototype curriculum and adapt it to fit a particular country's needs, it is necessary to understand the six main assumptions on which the curriculum is based.

Community Health Needs

It is assumed that community health needs have been determined and reviewed. It is assumed that the primary health care system has the ability to respond to these needs.

Management Support

It is assumed that efforts have been started to strengthen health planning and management. This will help ensure that health workers in rural communities are provided with the facilities, supplies, equipment, and drugs they need to carry out the tasks for which they will be trained.

Structure of the Health Team

It is assumed that the typical rural health center is staffed by one mid-level health worker, one auxiliary nurse, one midwife, one cleaner, and one guard. This team can support community health workers in a health center area covering 5,000 to 20,000 people.

Role of the Mid-Level Health Worker and the Community Health Worker

In the prototype system, the mid-level health worker is a representative of the government's health services. With supervision from the district medical officer and his staff, the mid-level health worker manages the health center and plans and implements the health services in his area. The mid-level health worker is responsible for diagnosing, treating, and appropriately referring any patients he sees at the health center. The mid-level health worker is also responsible for helping to train and supervise community health workers from nearby communities and for working with community members to identify and meet their preventive health needs.

Mid-level health worker students are assumed to read at the eighth grade level. They should have had some prior training and experience in health care. The usual candidates are nurses with community health experience, but other types of individuals, such as midwives, sanitarians, and dispensers, have been successfully trained.

It is assumed that community health workers help organize primary health care services at the community level. Communities select and support community health workers to help meet community health needs in cooperation with the nearest health center team. Community health workers live and work in the community. They know the problems of the community. Community health workers provide promotive, preventive, and simple curative services in the community.

Training

It is assumed that competency-based training methods will be used in the training program. The prototype training program for mid-level health workers lasts for fifteen months. It integrates classroom learning with clinical practice and community experience. The final four months of training are spent in a health center and surrounding communities. The program is designed for a class of twenty to twenty-four students. The full-time training staff usually includes a physician as program manager and at least two mid-level health worker instructors. These people share the responsibilities for teaching and for supporting the clinical practice and community experience activities. Part-time instructors teach specialized management or clinical skills. One or two non-faculty staff members carry out administrative and secretarial functions.

The prototype training program requires mid-level health workers to train and support community health workers in their health center areas. They train community health workers on topics that correspond to the health needs of their communities. The training is carried out in stages to allow community health workers to practice and use certain skills before they learn new ones.

Emphasis is on student performance evaluation. Although student knowledge is tested, the primary emphasis is on how the student can apply new knowledge during problem-solving situations and skill development.

Supervision and Continuing Education

Work skills often deteriorate after training. Skill deterioration occurs most often when workers are located in remote regions and have limited contact with other members of the health team. Regular supervision and continuing education can reduce or eliminate skill deterioration. The prototype materials include guidelines for maintaining skills through supervision and continuing education. It is assumed that the existing system can be adapted to include supervision and continuing education for new workers.

2.3 COMPARING THE EXISTING PRIMARY HEALTH CARE SYSTEM WITH THE SYSTEM ON WHICH THE PROTOTYPE CURRICULUM IS BASED

The following table describes the characteristics of a primary health care system based on situations common to many developing countries. The pro-

CHARACTERISTICS OF THE PRIMARY HEALTH CARE SYSTEM ON WHICH THE CURRICULUM IS BASED

	Service Area and Population Base			
	Community 200 - 1,000	Sub-District 5,000 - 20,000	District 100,000 +	
FACILITIES AND EQUIPMENT	Room in home or small health post	Health center with: 2 to 4 rooms 2 to 3 overnight beds No laboratory Refrigerator Safe water supply Latrine	District hospital with: 25 to 100 beds Laboratory and transfusion capability Operating room 24-hour emergency services X-ray services Electricity Refrigeration	District health office
DRUGS AND SUPPLIES	Approximately 20 drug and supply items	Approximately 100 drugs and supplies, including IVs	Drugs and supplies for a hospital	Drugs and supplies for health centers and CHWs
PERSONNEL	CHWs	1 MLHW and 2 to 3 additional health workers	1 to 5 physicians Support staff	District health officer (MD) Supervisory MLHW Additional PHC workers
SUPERVISION	MLHW	Supervisory MLHW and district health officer		
WORK SCHEDULE	Part time in community	MLHW in the health center 6 half days per week and in the community 4 half days per week	Daily outpatient departments	Supervisory MLHW in the field 15 days each month
REFFERAL AND TRANSFER TIME	To MLHW: 1 - 2 hours	To hospital: 6 - 12 hours		
TRANSPORTATION	Foot and bicycle	Bicycle or motor scooter Community means: taxi, bus, truck, boat, animal	4-wheel vehicle Motor scooter	Community means: taxi, bus, truck, boat, animal, train
COMMUNICATIONS	Messenger Postal service	Messenger Community means: telegraph, telephone, radio, postal service	Messenger Telephone or radio	Community means: telegraph, telephone, radio, postal service

totype training curriculum prepares mid-level health workers and community health workers to serve in a health system with these characteristics.

You should review this table with the appropriate decision makers at the policy level. Compare the general characteristics of the prototype primary health care system with the characteristics of your health care system. Consider these questions:

How does a typical health facility compare with the corresponding health facility in the prototype?

Who is the administrative supervisor of the rural health center?

Who is the technical supervisor of the health workers at the health center level?

Will mid-level health workers train and support community health workers?

Will mid-level health workers spend time in the community teaching about community health?

The prototype training curriculum prepares the mid-level health worker to work in a health center that has a few beds, refrigeration, a safe water supply and a latrine, but no laboratory equipment. The training curriculum is written to reflect a six to twelve-hour referral time to a hospital. The training activities prepare the mid-level health worker to use diagnostic equipment such as a sphygmomanometer and a stethoscope. Dental care skills require minimal dental equipment and supplies. The mid-level health workers are trained to use approximately one hundred drugs as they provide curative services to people in their health center areas. Along with other equipment and supplies, these drugs must be available on a predictable schedule.

Consider these questions as you think about the factors affecting mid-level health workers in the national primary health care system.

Do health centers have electricity?

Is refrigeration available?

Do health centers have facilities for keeping patients overnight?

What information needs are required at the health center level? What information is collected, analyzed, used, and then reported to higher levels in the system?

How frequently should a mid-level health worker supervise and support the community health workers in his health center area?

Are dental problems common?

Is the mid-level health worker required to handle money? Can he make local purchases?

What is the usual referral and transfer time between communities and health centers and between health centers and hospitals?

What type of transportation is provided at rural health centers?

Will the mid-level health worker have the authority to order drugs?

Are there specific drugs that require a supervisor's approval?

Does the mid-level health worker have authority to purchase drugs from local sources?

What controls on drug use should be established?

These questions will help you identify the important differences between the characteristics of the prototype health care system and those of the existing health care system. Since the training materials have been developed to prepare workers for the prototype health system, this comparison is an early step in the adaptation process. Based on this comparison, identify the characteristics of your primary health care system following these steps.

Describe the primary health care system in your country using the characteristics of the primary health care system in the table as a guide.

Identify the types of health workers working in the primary health care system and the tasks that they perform. Make recommendations for revising the roles of these health workers.

Write a role description for mid-level health workers.

Review the health care delivery system in your country in these areas: drugs and medical supplies, general supplies, facilities and equipment maintenance, transportation, communication, personnel, finance, and health information. Make recommendations to either change the management support system or revise the curriculum.

2.4 ESTABLISHING GUIDELINES FOR STUDENT SELECTION

Once you have identified the characteristics of your primary health care system, you need to make policy decisions concerning the mid-level and community health workers who will work in the system. These decisions include what the entry level of the students will be, how many students will be trained, where the students will be deployed after graduation, and how they will be compensated for their services.

Mid-Level Health Worker Students

a. Entry level

The standards used to identify acceptable students are called selection guidelines. Selection guidelines specify the minimum requirements for admission to the program. Choosing selection guidelines helps you

identify those applicants who are most likely to succeed as students and as mid-level health workers. You must establish selection guidelines before you adapt the curriculum. Then you can adjust the content and the reading level of the curriculum to reflect the entry level competence of the students. Selection guidelines can include educational background, academic standing, type and length of work experience, and age, sex, race, or citizenship restrictions or priorities. The following are examples of selection guidelines:

Registered nurse, midwife, or dispenser
Satisfactory academic standing
Two years experience working in a rural clinic
No restrictions on age, sex, race, or citizenship
Agreeable to signing a binding contract and working as a mid-level health worker at an assigned rural health center for three years

b. Number of students to be trained

You also need to decide how many students will be trained throughout the life of the training program. This information will help the training staff decide on the number of training sites to establish and the size of each training class so as to meet the needs of the country. The size of each training class will affect decisions about funding for staff, equipment, and facilities.

c. Deployment of graduates

You should also make decisions about where graduate mid-level health workers will be deployed. The deployment site shapes the job that the mid-level health worker will do. Competency-based training is built around preparing workers for specific jobs at specific sites. The prototype curriculum was designed for workers who will work in rural areas. If there is a decision to train urban workers, or a combination of urban and rural workers, the team adapting the curriculum will need this information so that they know what knowledge and skills to include in the curriculum.

d. Compensation

Establishing an adequate salary and grade for graduate mid-level health workers can motivate health workers to take part in the mid-level health worker training program and work in a rural area after graduation. Decisions have to be made early so that potential candidates can be informed of the pay and grade. Also, the ministry of health needs time to start the budgeting process that will be necessary to create the needed posts for mid-level health workers, to structure the personnel system, and to allot funds for salaries and benefits.

Community Health Worker Students

In the prototype, the community health worker is selected by the community and trained by the mid-level health worker. In most countries, community leaders choose selection guidelines following recommendations of the ministry of health.

The following are some commonly used guidelines for selecting community health workers:

Community health workers must be acceptable to the community they are to serve.

Community health workers should be full-time community residents who are willing to stay in the community.

Community health workers can be of any age as long as they are acceptable to the community.

Community health workers can be married or unmarried as long as they are acceptable to the community.

With the exception of traditional healers, people with full-time jobs should not become community health workers.

Community health workers must be prepared to provide services to all members of the community without exception.

Community health worker selection is the community's responsibility. However, members of the health center team help the community organize the process. The mid-level health worker should speak with the community leaders about the following issues before community health workers are selected:

Selection of community health workers should be preceded by community meetings to discuss primary health care, the role of community health workers, and the selection guidelines to be used.

Selection should be based on selection guidelines established by the community.

The community leaders and members should decide on the number of community health workers needed to work in the community.

The position of community health worker is a voluntary, part-time job.

Compensation for community health workers, if any, shall be provided by the community.

The community health worker shall receive guidance and support from the community leaders and technical guidance and support from the nearest health center team.

ACTIVITY 2

Comparing the Existing Primary Health Care System with the System on Which the Prototype Curriculum Is Based

You begin the curriculum adaptation process with a review of the community health needs that have been identified. You identify gaps between the country's health goals and existing health conditions. You then compare the country's health plan with the assumptions of the prototype curriculum. This comparison will guide the adaptation process. Differences between the characteristics of the prototype and the country's health care systems indicate the need to revise the prototype training curriculum. Remember, the training program prepares workers to use the resources of a health system that includes drugs, a facility in which to work, a supervisor, and communication and transportation support. Changes in these support systems will affect the worker's ability to complete his job.

Consider these examples. Each presents a dilemma. Each can be resolved by changing government policy, restructuring training, or simply making the best of what cannot be undone.

Country A has used foreign assistance loans to build several rural health centers. The rural health centers are accessible and visible from many highways. However, the accessibility to local communities is poor. Country A cannot find physicians to staff the health centers. Therefore, current plans call for the training of fifty mid-level health workers per year at the ministry of health. Planning for provision of drugs, equipment, and supplies has not begun. Only limited clinical facilities are available near the one designated training center.

> The solution for Country A would begin with urgent appeals to the government to begin planning for management support. The lack of clinical facilities could be resolved by concentrating on classroom training at the beginning and then setting up a separate clinical rotation phase in several district hospitals. In this way, adequate but not ideal clinical experience could be provided. The poor location of health centers might be alleviated by having the mid-level health workers spend more time in the communities seeing children and older people.

Country B has completed a nine-month demonstration training program for fifteen carefully selected students. Although the students protest that they were not well prepared, the program was a political success. The government has declared that it will place two hundred mid-level health workers per year in rural areas. Plans have already been initiated to provide and equip rural health centers. The first class will be deployed to their rural sites in nine months. Since at least three months will be required to organize training, this implies that students can complete only six months of training before deployment.

> In Country B, the government might be persuaded to allow more time for training before deployment. A special continuing education program could also be arranged to supplement inadequate training for the first class. The first class should be considered a special case. Plans should be made to begin adequate training with the second class.

Country C has developed a well-planned and supported program to train and deploy twenty mid-level health workers per year. However, several voluntary agencies have started to train selected groups of community health workers. They bring the community health workers into their hospital for two-month training periods and send them back to the village with a one-year stipend and the promise of possible salary support from the government.

> In Country C, it may be best to omit the community health worker component of training for the present time. Graduate mid-level health workers could be called back later for special training for working with community health workers and a more realistic community health worker program then initiated.

Having considered these examples, review ministry of health documents that summarize the structure of the existing health care system and the plans for health development efforts. Review the table that summarizes the characteristics of the prototype health care system. Prepare a similar table that describes your country's health care system. Complete the Worksheet for Activity 2. As the differences between the two systems emerge, decide where and how to make any necessary changes.

WORKSHEET FOR ACTIVITY 2

COMPARING THE EXISTING PRIMARY HEALTH CARE SYSTEM WITH THE SYSTEM ON WHICH THE PROTOTYPE CURRICULUM IS BASED

	Service Area and Population Base		
	Community 200 - 1,000	Sub-District 5,000 - 20,000	District 100,000 +
Facilities and Equipment			
Drugs and Supplies			
Personnel			
Supervision			
Work Schedule			
Referral and Transfer Time			
Transportation			
Communi-cations			

ACTIVITY 3

Defining the Roles and Responsibilities of the Members of the Health Team

Since plans for health programs must reflect existing financial and personnel resources, policy makers customarily emphasize some health goals and place less emphasis on others. In recent years, the emphasis has been on reaching large numbers of people with basic, or primary, health care services. The concept of primary health care is based on the idea that prevention and early treatment will eliminate more illness and save more lives than will the curative care offered in hospitals. In many communities, people suffer from illnesses that can be prevented with better nutrition, sanitation, child spacing, and immunization services. When illness does occur, people need early, basic care. A comprehensive approach to maintaining the well-being of community members through basic promotive, preventive, and curative services is the basis of primary health care.

In many countries, disease prevention and control efforts have consisted of a series of separate programs. Groups of workers were trained and sent to eradicate a particular health problem. Malaria control, tuberculosis control, child spacing, and immunization were organized as separate programs. Each required a separate group of workers, with separate training and supervisory staff and a duplicate management support system. The current approach to improving health is to deploy mid-level health workers to provide primary health care services in rural health centers and to support community health workers in their health center areas. In this way, a larger number of people have access to primary health care services.

With representatives of the administrative and planning divisions of the ministry of health, you will review the ministry of health job descriptions for primary health care personnel at the district, health center, and community levels. You will also review ministry of health data on the number, type, and location of primary health care personnel. Then you will analyze the responsibilities of health team members and prepare role descriptions for mid-level and community health workers. By analyzing the roles and responsibilities of the different members of the health team, you can find where staff are unnecessarily duplicating primary health care activities and find the areas where no one is offering services. Once you know where the overlaps are in roles and responsibili-

ties, you can define or redefine roles and responsibilities to more accurately meet the needs of the primary health care system. These definitions will direct those who adapt the content of the training curriculum.

Complete the Worksheet for Activity 3. Follow these steps.

1. In the column on the left, list each health worker who will be working at the district, health center, or community level.
2. Identify the tasks that each health worker will perform. Each square in the table represents a possible task. Leave the square blank if the worker will not be expected to perform that particular task. If the worker will perform the task, write the appropriate number in the square to indicate his role.
3. Develop a role description for mid-level health workers and community health workers. Make recommendations for revising the roles of other health workers.
4. Note whether the role descriptions for the mid-level health workers and community health workers differ from the prototype roles.
5. If the roles differ, develop simple guidelines that describe how the curriculum must be adapted to reflect the differences.

WORKSHEET FOR ACTIVITY 3

DEFINING THE ROLES AND RESPONSIBILITIES OF THE MEMBERS OF THE HEALTH TEAM

1 = Performs role directly 2 = Helps others perform the role 3 = Gives technical supervision 4 = Gives administrative supervision 5 = Advises or consults

		PATIENT CARE						MATERNAL AND CHILD HEALTH				COMMUNITY HEALTH			HEALTH CENTER MANAGEMENT		
	TASKS / PEOPLE	Medical Problems	Care of Children	Care of Women	Skin Problems	Dental Problems	Trauma and Emergency	Child Spacing	Prenatal and Postnatal	Labor and Delivery	Nutrition and Immunization	Working with Community Health Workers	Community Needs Assessment	Community Education	Support Systems	Team Management	COMMENTS
DISTRICT	1. Doctor or supervisory mid-level health worker																
	Others: 2. Public health nurse																
	3. Senior midwife																
	4.																
	5.																
HEALTH CENTER	1. Mid-level health worker																
	Others: 2. Midwife																
	3. Nurse aide																
	4.																
COMMUNITY	1. Community health worker																
	2. Traditional birth attendant																
	3.																

ACTIVITY 4

Defining the Management Support Requirements for Mid-Level Health Workers

In the prototype curriculum, eight management support systems are used to support the delivery of primary health care services. They are used to obtain, maintain, and control the resources needed to carry out a primary health care program. These support systems are:

DRUGS AND MEDICAL SUPPLIES

This system is used to procure, store, distribute, and control the use of drugs and medical supplies.

GENERAL SUPPLIES

This system is used to procure, store, distribute, and control the use of administrative, office, and other supplies and equipment.

FACILITIES AND EQUIPMENT MAINTENANCE

This system is used to protect facilities and equipment from deterioration and help prolong their useful life through regular preventive maintenance and repair.

TRANSPORTATION

This system is used to procure, protect, and manage transportation resources needed to move health workers, patients, and supplies.

COMMUNICATION

This system is used to provide, protect, and manage communication resources that link health workers to each other, to their supervisors, and to patient referral centers.

PERSONNEL

This system is used to plan, recruit, employ, supervise, and evaluate health manpower.

FINANCE

This system is used to plan, obtain, control, report, and use financial resources.

HEALTH INFORMATION

This system is used to gather, organize, report, and use data for planning and managing health care services.

You need to define the management support requirements for mid-level

health workers in your primary health care system. These requirements will direct those who adapt the content of the training curriculum.

Gather these documents:

- Outline of personnel policies, procedures, forms, and conditions of service, training resources, supervisory patterns, and procedures for establishing new or revised positions
- List of drugs, medical supplies, and equipment available with cost information for each item
- Outline of policies, procedures, forms, and resources used in the procurement, distribution, and control of drugs
- Outline of policies, forms, and procedures for collecting, analyzing, using, and reporting health and management information for health centers
- Outline of policies, forms, and procedures for budgeting and accounting for health centers
- Outline of policies, procedures, forms, and resources used in the transportation of ministry of health personnel, patients, supplies, and equipment
- Outline of policies, practices, and resources concerning community health programs, health promotion, training, and supervision

With representatives of the administrative and planning divisions of the ministry of health, identify the differences between the management support characteristics of the prototype system and the existing system. Then propose a strategy for resolving the differences. Recommend changes in the training curriculum, changes in the existing management support system, or both. Follow these steps.

1. Divide the participants into groups according to subject, making sure both technical and policy level persons are represented in each group. Suggested subject groupings are:

   Drugs and medical supplies
   General supplies
   Facilities and equipment maintenance
   Transportation
   Communication
   Personnel
   Finance
   Health information

   Provide each group with background information on their subject area. Encourage participants to provide additional background materials.

2. Have each group review each item or topic related to their subject area and identify any differences between the prototype system and the system in current use in the country. Then, have the groups decide on a strategy for resolving each difference. They can decide to change the training materials, change the country's system, or make changes in both.

   However, they should recommend changes in the system only if they can realistically implement the changes within the next one or two years. In this way, the training will conform to the practices, procedures, and resources available to the management system when the members of the first class of mid-level health workers are deployed.

3. Have the groups complete Part A of the Worksheet for Activity 4. With some topics, the groups may agree that no change is required in either training materials or the management support system. For other subjects, the groups will determine that changes are needed. These may be in the training materials, in the support system, or in both.

4. Have the groups complete Part B of the Worksheet for Activity 4. They should list all items in the training materials requiring a change. List the items, the specific action required for each, and the person or group responsible for taking the action.

5. Have them complete Part C in the same way for those items in the management support system requiring a change. Here, when possible, those responsible should be listed for each action, along with a completion date for that action. Noting the date is a useful reminder that these actions should be accomplished within a relatively short period of time, probably no more than two years.

WORKSHEET FOR ACTIVITY 4

DEFINING THE MANAGEMENT SUPPORT REQUIREMENTS FOR MID-LEVEL HEALTH WORKERS

SUBJECT _____

RECORDER _____

PART A

TOPIC	IS THERE A DIFFERENCE BETWEEN THE PROTOTYPE SYSTEM AND THE EXISTING SITUATION?	STRATEGY FOR RESOLVING THE DIFFERENCE	
		CHANGE TRAINING MATERIALS	CHANGE MANAGEMENT SUPPORT SYSTEM
Example:			
1. Supervision of mid-level health workers Prototype calls for a physician within 6 to 12 hours referral time. In the country there is a shortage of doctors. Public health nurses need to be given special training for supervision of health centers.	Yes	Yes	No
2. Standard drugs list	Yes	Yes	Yes

PART B

TOPIC	ACTION TO BE TAKEN TO CHANGE THE TRAINING MATERIALS	RESPONSIBILITY
Example:		
1. Supervision of mid-level health workers	Change all references to supervision of the mid-level health worker from physician to public health nurse with special qualifications. Access to public health nurse will range from 3 to 24 hours	Group responsible for adapting the general clinical materials and health center management materials
2. Standard drugs list	Review the standard drugs list. Revise the list and the training materials, using the prototype as a guide	Group responsible for adapting the Formulary

PART C

TOPIC	ACTION TO BE TAKEN TO CHANGE THE MANAGEMENT SUPPORT SYSTEM	RESPONSIBILITY	COMPLETION DATE FOR ACTION
Example:			
2. Standard drugs list	Review the standard drugs list. Revise both the list and the training materials, using the prototype as a guide	Group responsible for adapting the Formulary	1 July 1984

ACTIVITY 5

Establishing Guidelines for Student Selection

You will develop guidelines for the selection and deployment of mid-level and community health worker students. These guidelines will direct those who adapt the content of the training curriculum. Follow these steps.

1. List selection guidelines for mid-level health workers and community health workers.
2. Decide how many mid-level health worker students will be trained according to the needs of the community.
3. Decide where mid-level health workers will be deployed after completing the training program.
4. Make recommendations about the salary level and grade for mid-level health workers. Give the recommendations to the appropriate ministry of health department.

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SECTION 3

Selecting an Adaptation Approach and an Adaptation Team

PROGRAM MANAGER'S GUIDE

OBJECTIVES

After completing the activities in this section, you should be able to:

1. Select an adaptation approach
2. Select people to take part in the curriculum adaptation

To achieve these objectives, you must know:

1. The strengths and weaknesses of the three methods for organizing the curriculum adaptation process:

   Workshops
   Working committee
   Working staff with advisory committees

2. The professional characteristics that are needed in resource people chosen to adapt the curriculum
3. The activities required to complete the curriculum adaptation

ACTIVITIES

1. Read Section 3.
2. Select an adaptation approach and an adaptation team.

RATIONALE

You have made the policy decisions for adapting the training curriculum. Now you can adapt the prototype curriculum to reflect the stated needs of the country's health plan within the limitations of the country's health care system. First, however, you must choose a method for organizing and completing the adaptation. You must also schedule the adaptation and select an adaptation team. This unit prepares you to carry out these activities.

PROGRAM MANAGER'S NOTE

YOUR GOAL IS TO CHOOSE AN ADAPTATION APPROACH THAT LEADS TO THE DEVELOPMENT OF BALANCED AND REALISTIC ROLES FOR HEALTH WORKERS.

3.1 SELECTING AN ADAPTATION APPROACH

There are three approaches for organizing and completing the curriculum adaptation. Each of the three approaches makes different demands on personnel and financial resources. Each approach has strengths and limitations. They are discussed below from the point of view of adapting the entire prototype curriculum. Less time and resources would be required to adapt only part of the curriculum.

Workshops

The adaptation of the prototype curriculum has customarily been planned and organized during two short, intensive workshops. The objective of the first workshop is to plan the adaptation of the student texts and reference manuals. The objective of the second workshop is to adapt the instructor's manuals and evaluation materials and to prepare the participants for their roles as instructors and supervisors in the training program.

The first workshop usually lasts about two weeks. Participants are selected for their practical experience, technical expertise, and professional or political influence. The number of participants depends on the availability of interested personnel. In addition to you and the two other members of the training staff, the workshop can accommodate twenty to fifty participants. Plan to spend about three months preparing for this workshop. You need to identify and notify participants, arrange for adequate facilities, and prepare materials. Appendix A outlines the details for planning, conducting, and evaluating a workshop.

The objective of the workshop is to familiarize the participants with the adaptation process. You will introduce them to the activities in this manual that will help them understand the competency-based training approach and the format, content, and design of the prototype training curriculum. Although the participants will be responsible for adapting only part of the curriculum during the workshop, they need to understand how the parts work together to complete the training program. They need to be informed of the administrative decisions that have been made such as who the students will be, how they will be selected, and where they will be deployed. They also need to be informed of the technical decisions

that have been made that will affect the job responsibilities of mid-level and community health workers.

You will divide the participants into groups according to professional interest and experience. You will help the groups carry out the step-by-step process of adapting each part of a student text and the corresponding reference manuals. This process is described in Sections 4 and 5. The duration of the workshop will determine the amount of work that each group can accomplish. This means that during the workshop the participants may adapt only one or two units in a student text, one or two patient care procedures, only a few diagnostic and patient care guidelines, and the discussion of only a few drugs or medications. The following schedule shows how you could plan your activities for the ten-day workshop.

Then, for two to four months after the workshop, selected participants will meet as technical committees to complete the adaptation of the student texts and reference manuals. These committees will work in the same groups to which they were assigned during the workshop. These committees typically include professionals in the areas of community health and community health worker training, general clinical care, maternal and child health, and health center management.

The major responsibility of you and your staff is to support the technical committees in their adaptation efforts and to ensure that they complete their work on schedule. The committee working on the adaptation of the community health and community health worker materials will require the most attention. As they adapt the materials, they will need to spend time in communities to assess the effectiveness of the adapted materials in meeting objectives.

During the first workshop, you and your staff will also plan the second workshop. You will inform the participants of the objectives of the second workshop. You will identify people who are interested in adapting the instructor's manuals and evaluation materials and in preparing to be instructors and supervisors in the training program. You will finalize the plans for the second workshop while the technical committees are completing their work.

The second workshop usually lasts about two weeks as well. People who were involved in adapting the student texts and reference manuals will learn in this workshop about the available methods for teaching the materials that they have adapted. They will learn how to apply the principles of competency-based training to teach the materials. You will find that they will be enthusiastic about teaching the materials that they have adapted. This enthusiasm will have an important effect on the success of the program. Experience has repeatedly demonstrated that people are

Schedule of Activities for Adapting the Student Texts and Reference Manuals

DAY 1	DAY 2	DAY 3	DAY 4	DAY 5
Introduction Goals and adaptation plan Introduction to Competency-Based Training (Unit 1): - Introduce curriculum - Make individual assignments - Schedule weekly committee meetings - Distribute materials	Making Policy Decisions to Guide the Curriculum Adaptation (Unit 2): - Needs assessment - Compare prototype primary health care system with existing primary health care system - Make policy level administrative and technical decisions - Distribute materials	Adapting the Task Analysis Tables (Unit 4): - Introduce the job analysis process and the purpose of task analysis tables - Adapt lists of tasks, health problems, procedures, supplies and equipment, and drugs - Distribute materials	Adapting the Task Analysis Tables (Unit 4): - Adapt the task analysis tables to include duties, skills, and knowledge - Distribute materials	Adapting the Student Texts and Reference Manuals (Unit 5): - Adapt the student guide objectives to match the adapted skills and knowledge in the task analysis tables - Distribute materials
DAY 6	**DAY 7**	**DAY 8**	**DAY 9**	**DAY 10**
Adapt the Student Texts and Reference Manuals (Unit 5): - Adapt the student text narrative for one unit to match unit objectives - Distribute materials	Adapting the Student Texts and Reference Manuals (Unit 5): - Adapt the review questions, review exercises, and skill checklists for one unit to match the adapted narrative - Distribute materials	Adapting the Student Texts and Reference Manuals (Unit 5): - Adapt the reference manuals to match the adapted narrative - Distribute materials	Adapting the Student Texts and Reference Manuals (Unit 5): - Review all adaptations completed to date - Distribute materials	- Schedule completion of student text assignments over the next two and one-half months - Schedule committee meetings to follow for adapting the instructor's manuals and evaluation materials - Distribute materials

more interested in teaching materials that they have adapted themselves than in teaching materials that were adapted by others. They will be receptive to trying different approaches to teaching. They will feel like they are becoming a part of the program. In most cases, their work will reflect this involvement.

You will first help the participants carry out each step in the process of adapting the instructor's manuals. This process is described in Section 7. The participants will "learn by doing." As they complete each step in the adaptation, they will prepare learning activities to present to the group. You will critique and evaluate their presentations to help them choose the most appropriate and effective learning activities for each objective.

The creativity of the participants in adapting the teaching plans and learning activities will determine the speed of this process. You should encourage the participants to practice using a variety of learning methods. You should also encourage the participants to work together as teams.

Next, you will introduce the participants of the second workshop to the purpose and use of the evaluation tools and the evaluation log books. These are also explained in Section 7. They will have to use these materials in their work as instructors and supervisors. If there is enough time, you can work with the instructors to adapt the evaluation materials. However, this is not mandatory. The content of the evaluation materials reflects the adapted objectives, review questions, and procedures. This information needs only to be transferred to an agreed upon format. Who does this is not that important. What is important is that the instructors understand and properly use the evaluation materials that are an integral part of the competency-based training curriculum.

The instructors will have six weeks after the workshop to complete the adaptation of the instructor's manuals. You and your staff will monitor and help with this process.

The last step in this adaptation approach is to review, edit, translate, and reproduce the adapted materials. This process is described in Section 8. Keep in mind that only those modules that are to be taught early in your scheduled training sequence must be adapted and reproduced by the start of the program. The remainder can be completed simultaneously with the training activities.

A major advantage of this first curriculum adaptation approach is that the process is initiated in an atmosphere of cooperation and involvement among the workshop participants and committee members. However, the approach requires you to have a detailed knowledge of the prototype

materials and the principles of competency-based training, as well as experience in group dynamics. The workshops require consensus building among those present. Since this has to happen within a relatively short period of time, special expertise is needed to facilitate the workshops. Remember that Appendix A outlines how to plan and conduct a workshop.

The other two approaches to curriculum adaptation are described below. The basic principles of curriculum adaptation are the same for these two approaches. The difference is the amount of time and the number of people who will be involved.

Working Committee

The second of the three approaches for organizing and completing the adaptation of the entire curriculum is to use a working committee. A working committee is a group of about twenty people who meet weekly to systematically make decisions and plan the curriculum adaptation with you and your staff. You use the same criteria for selecting working committee members that you used to select workshop participants. Allow about one month to plan the working committee approach.

You and your staff will meet with the committee once a week for approximately ten weeks to introduce them to the requirements for adapting the student texts and reference manuals. The committee members will develop their adaptation skills during this time. Your schedule for meeting with the committee will be similar to that of a workshop schedule for adapting the student texts and reference manuals. The only difference is that you will be working for ten days spread over a ten-week period of time rather than for ten consecutive days in a two-week workshop. You and your staff should also plan to meet with individual or small groups of committee members to provide assistance if necessary between the scheduled weekly meetings.

For the next ten weeks the committee members are expected to independently complete the adaptation of the student texts for the modules they have been assigned. Their collective contributions to the reference manuals will result in the complete adaptation of these manuals. You and your staff will be responsible for helping the committee members during this time to ensure that they stay on schedule. You will also coordinate the adaptation of the reference manuals.

After the student texts and reference manuals are adapted, you must schedule weekly meetings with the working committee to complete the next phase of adaptation activities: adapting the instructor's materials and preparing the instructors for their training responsibilities. Meetings for this purpose need be scheduled only once a week for six weeks.

The committee members then complete their individual assignments during the next three months.

An advantage to this second approach to curriculum adaptation is that, in contrast to a workshop that requires about three months preparation time, a working committee can begin its work within about one month. However, all members of a working committee must live and work in the same geographic area. This means that much of the practical input that comes from people working in rural communities will be missing. Another disadvantage is the difficulty of maintaining enthusiasm among a group that has other full-time responsibilities.

Working Staff with Advisory Committees

Possibly the fastest and most efficient approach is to appoint six to eight additional full-time staff members to complete the adaptation using one or more advisory committees as consultants. For example, working staff members adapting the maternal and child health modules could draw on an advisory committee made up of midwives, public health nurses, nutritionists, general practitioners, and pediatricians.

Setting up a working staff and the required advisory committees requires about one month planning time. You and your training staff will then work with the additional staff members to complete the curriculum adaptation. You will introduce the working staff to each step for adapting the student texts and reference manuals as you progress. Allow about four months for the adaptation of these materials. Then you will teach the working staff how to adapt the instructor's manuals and the evaluation materials. They can usually complete the work on the instructor's manuals and the evaluation materials in two months.

This is a well-controlled and efficient approach. The disadvantage is the lack of participation by a range of people working in rural communities and in the health care system. Furthermore, time can be lost if the staff members make some poor decisions or cannot work effectively as a team.

In selecting an adaptation approach, choose the method that will most likely result in a balanced and realistic role for mid-level and community health workers. Consider these questions:

Which approach will develop the best network of support for the training program and its graduates?

Which approach will ensure the highest technical quality of the training curriculum?

Which approach is most suited to your personality, skills, and experiences?

What is the best approach for developing support among members of the health system?

How much time is available to adapt the curriculum?

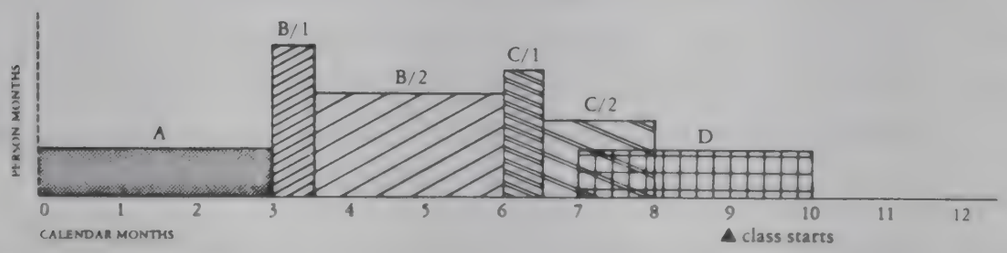
How much money is available to support the adaptation activities?

3.2 SCHEDULING THE ADAPTATION

You can divide the adaptation process into four stages: planning, adaptation of the student texts and reference manuals, adaptation of the instructional materials and instructor preparation, and editing and reproducing the adapted curriculum. Depending on the adaptation approach, each of these stages takes a different amount of time and makes varying demands upon personnel. The following diagrams show how time could be allocated for each of the three adaptation approaches. The diagrams also estimate the number of person months required to complete the activities. Use these diagrams to guide you in scheduling the adaptation activities. Keep in mind

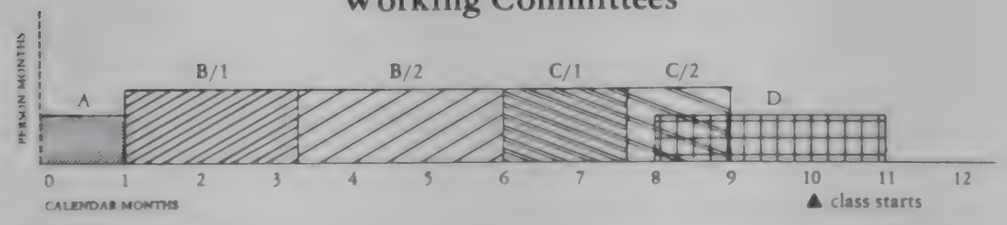
APPROACHES FOR CURRICULUM ADAPTATION

Workshops



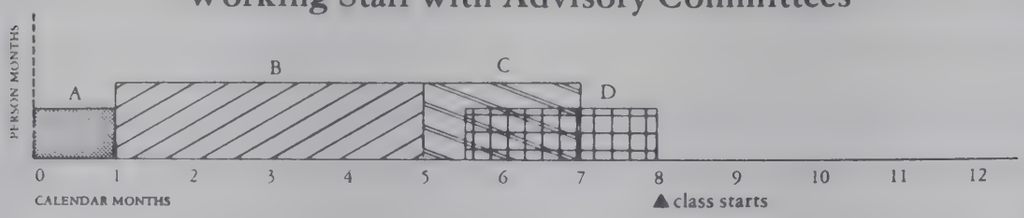
Key: A - Planning
B/1 - Workshop for adapting student texts and reference manuals
B/2 - Post-workshop activities
C/1 - Workshop for adapting instructional materials and preparing instructors
C/2 - Post-workshop activities
D - Editing and reproducing the adapted curriculum

Working Committees



Key: A - Planning
B/1 - Meetings with working committees for adapting student texts and reference manuals
C/1 - Post-meeting activities
C/1 - Meetings with working committees for adapting instructional materials and preparing instructors
C/2 - Post-meeting activities
D - Editing and reproducing the adapted curriculum

Working Staff with Advisory Committees



Key: A – Planning
B – Adaptation of student texts and reference manuals by working staff
C – Adaptation of instructional materials and preparation of instructors by working staff
D – Editing and reproducing the adapted curriculum

that the schedules illustrated here show the requirements for adapting the entire prototype curriculum for training mid-level and community health workers. Adapting only community health worker materials or maternal and child health materials would take considerably less time.

3.3 SELECTING AN ADAPTATION TEAM

The people who adapt the curriculum will help determine the emphasis of the training program and the ultimate success of the graduated health workers in meeting community needs. There are no clear guidelines for the number of people to be involved in the adaptation of a particular module. Keep in mind that too many people can inhibit the process. Too few people, however, may not provide a balanced view of the country's needs. Also remember that the curriculum adaptation is, to some degree, a political event. Be sure to include some policy level participants who can silence any political opposition to the decisions made by the adaptation team.

Choose participants who can make a commitment to completing the adaptation process. Choose technical experts from several disciplines, including community health, clinical medicine, maternal and child health, and health center management, to reflect the range of topics covered in the curriculum. Most important, choose people who have actually worked in a setting similar to the setting in which the mid-level health worker will work. For example, suppose you have chosen an ophthalmologist to adapt the material on eye problems in the Dental, Eyes, Ears, Nose, and Throat module. The ophthalmologist has, however, worked only in specialty clinics in a large referral hospital. He has never worked in a rural health center. He may adapt the material on common eye problems to reflect only the serious and unusual cases that have been referred to him and not the common eye problems found in rural communities.

Also keep in mind that even participants who have community experience will adapt the curriculum according to their personal experience and views.

A problem may develop if the differing views of those involved in adaptation are not balanced. For example, physicians often try to increase the program's emphasis on curative services at the expense of community involvement. Community workers, such as public health nurses and health inspectors, may apply pressure to enhance the preventive and promotive aspects at the expense of curative services. Tuberculosis or leprosy control officers may try to promote the importance of their specialties. This can result in over-emphasizing one portion of the mid-level health worker's job. An equally bad compromise can expand the mid-level health worker's responsibilities in all the categories of work, thereby creating job expectations that are impossible to fulfill.

A balanced training curriculum will prepare the mid-level health worker to do a job that is realistically defined and that at the same time meets community health needs. To create a balanced training curriculum, follow the steps for developing a competency-based training program. Also choose an adaptation approach that allows the health experts to talk about their sometimes contradictory opinions and come to consensus about how to blend their differences into a workable and relevant curriculum.

CREATING A BALANCED PROGRAM

ACTIVITY 6

Selecting an Adaptation Approach and an Adaptation Team

Select the adaptation approach that you are going to use. Then, use the Worksheet for Activity 6 to identify people to adapt the curriculum. The worksheet divides the curriculum into five categories of training materials: health center management, community health and community health worker training, general clinical care, maternal and child health, and basic clinical knowledge and skills. These categories help define the types of personnel who should be included in the adaptation process and help organize the committees to complete the work.

Identify a leader for each working group. Be sure that each group is large enough to complete the adaptation process before the time established to begin the training program.

WORKSHEET FOR ACTIVITY 6

Selecting an Adaptation Approach and an Adaptation Team

GROUPS	POSSIBLE PARTICIPANTS	QUALIFICATIONS
GROUP 1 — Complete the adaptation of the health center management modules and reference manual for mid-level health workers: Working with the Health Team module Working with Support Systems module Health Center Operations manual		
GROUP 2 — Complete the adaptation of the community health modules and reference manual for training mid-level health workers and the module and workbooks for training community health workers: Identifying the Preventive Health Needs of the Community module Meeting the Preventive Health Needs of the Community module Community Health manual		

GROUPS	POSSIBLE PARTICIPANTS	QUALIFICATIONS
Training and Supporting Community Health Workers module Workbooks for training community health workers Introduction to Training Clean Water and Clean Community Prevention and Care of Diarrhea Healthy Pregnancy Feeding and Caring for Children Some Common Health Problems Tuberculosis and Leprosy First Aid		
GROUP 3 — Complete the adaptation of the general clinical modules and reference manuals for mid-level health workers: Respiratory and Heart module Gastrointestinal module Genitourinary module Skin module Dental, Eyes, Ears, Nose, and Throat module Infectious Diseases module Other Common Problems module Trauma and Emergency module Formulary Diagnostic and Patient Care Guides Patient Care Procedures		
GROUP 4 — Complete the adaptation of the maternal and child health modules and reference manuals for mid-level health workers: Prenatal Care module Labor and Delivery module Postnatal Care module Problems of Women module Diseases of Infants and Children module Child Spacing module Formulary Diagnostic and Patient Care Guides Patient Care Procedures		
GROUP 5 — Complete the adaptation of the basic clinical knowledge and skills modules for mid-level health workers: Anatomy and Physiology module Medical History module Physical Examination module		

SECTION 4
Adapting the Task Analysis Tables

PROGRAM MANAGER'S GUIDE

OBJECTIVES

After completing the activities in this section, you should be able to:

1. Adapt task analysis tables to specify the duty, skill, and knowledge requirements for mid-level health workers
2. Prepare task analysis tables to specify the duty, skill, and knowledge requirements for community health workers

To achieve these objectives, you must know:

1. The job analysis process and its value in describing and clarifying the responsibilities of mid-level and community health workers
2. The tasks that mid-level and community health workers will perform
3. The health problems that mid-level health workers will identify and treat or refer
4. The patient care procedures that mid-level health workers will perform
5. The supplies and equipment that mid-level health workers will need to carry out patient care and other procedures
6. The drugs and medications that mid-level health workers will need to provide patient care

ACTIVITIES

1. Read the description of the job analysis process presented in Section 4.
2. Review the guidelines for curriculum adaptation that were developed in Section 2.
3. Prepare a list of the tasks that mid-level and community health workers will perform.
4. Prepare a list of the health problems that mid-level health workers will identify and treat or refer.
5. Prepare a list of the patient care procedures that mid-level health workers will perform.
6. Prepare a list of the supplies and equipment that mid-level health workers will need to carry out patient care and other procedures.

7. Prepare a list of the drugs and medications that mid-level health workers will need to provide patient care.
8. Prepare task analysis tables that describe the work of mid-level and community health workers.

RATIONALE

You have selected an adaptation approach and an adaptation team. No matter which approach you have selected, the first job of the adaptation team is to carry out a job analysis for mid-level and community health workers. The job analysis process outlines the tasks that health workers must carry out so that the training program includes only essential, job-related skills and knowledge. This unit describes the job analysis process and prepares you to help the adaptation team adapt the task analysis tables for mid-level and community health workers. The job analysis process defines and limits the content of the training curriculum. The curriculum is explained in more detail in Section 5.

PROGRAM MANAGER'S NOTE

ADAPTATION HAS ALL THE ADVANTAGES OF SYSTEMATIC PROGRAM DEVELOPMENT, BUT IT TAKES LESS TIME. TASK ANALYSIS TABLES ARE AN ADAPTATION TOOL.

4.1 THE JOB ANALYSIS PROCESS

The job of a mid-level health worker is made up of several different tasks. The number of tasks, the difficulty of the tasks, and the relationship among the tasks vary from job to job. Each task must be fully understood if training is to ensure efficient job performance. You use task analysis tables to analyze the health worker's job and to identify the training requirements for the students. Each task has a list of duties. The duties identify the work requirements of the job. Each duty has corresponding skills and knowledge. The skills and knowledge define the training requirements for preparing the student to perform his job. You adapt the list of tasks first. Then you adapt the duties for each task. Next you adapt the skills for each duty. Finally you adapt the knowledge requirements for each skill. The adapted task analysis tables guide the adaptation of the student texts.

4.2 ADAPTING THE TASK LISTS

A competency-based training program defines tasks in terms of general problem-solving categories. For example, one task of the mid-level health worker in the prototype curriculum is to "diagnose, treat, and prevent skin problems." Another task is to "diagnose, treat, and prevent gastrointestinal problems." A third task is to train community health workers to "prevent and care for diarrhea." The ability to treat skin problems is different from the ability to treat gastrointestinal problems. In fact, a person who completely understands the treatment of gastrointestinal problems may know little or nothing about recognizing and treating skin problems. The same can be said about training community health workers. Performance of this task requires different abilities from those used to diagnose diseases.

The prototype task lists for mid-level health workers are divided into the major categories of the health worker's job. These categories are: health center management, community health, general clinical, and maternal and child health. The prototype task lists for community health workers are all in the category of community health.

Job: Mid-level health worker

Category: Health center management

Tasks:
- Working with health teams to provide primary health care services in a community
- Managing the resources available at the health center level of the primary health care program

Category: Community health

Tasks:
- Identifying the preventive health needs of the community
- Planning, carrying out, and evaluating activities with the community to meet their preventive health needs
- Training and supporting community health workers

Category: General clinical

Tasks:
- Diagnosing, treating, and preventing common skin problems
- Diagnosing, treating, and preventing common dental, eyes, ears, nose, and throat problems
- Diagnosing, treating, and preventing common respiratory and heart problems
- Diagnosing, treating, and preventing common gastrointestinal problems
- Diagnosing, treating, and preventing common genitourinary problems
- Diagnosing, treating, and preventing common infectious diseases
- Diagnosing, treating, and preventing other common problems
- Diagnosing, treating, and preventing trauma and emergencies

Category: Maternal and child health

Tasks:
- Providing prenatal care to pregnant women in the community
- Managing labor and delivery
- Providing postnatal care to women in the community
- Diagnosing, treating, and preventing common problems of women
- Diagnosing, treating, and preventing common problems of infants and children
- Providing individuals and couples with counseling and clinical services related to child spacing

Job: Community health worker

Category: Community health

Tasks:
- Promoting clean water and clean environment in the community
- Preventing and caring for diarrhea in the community
- Helping women in the community have healthy pregnancies
- Helping parents properly feed and care for their children
- Preventing and caring for some common health problems in the community

Preventing the spread of tuberculosis and leprosy and identifying, referring, and following up people with these illnesses
Preventing and caring for minor injuries and accidents in the community

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Identifying tasks is one of the most important steps in developing a relevant and successful training program. It is, however, only the first step. The tasks are not yet in a form that will help the adaptation team adapt the training curriculum. You must also specify the duties, skills, and knowledge that make up the tasks.

4.3 ADAPTING THE DUTY LISTS

Defining a job in terms of tasks is the first step in the job analysis process. The next step is to define the duties involved in each task. For example, consider the task "diagnosing, treating, and preventing common gastrointestinal problems." To diagnose a common gastrointestinal problem, the mid-level health worker must follow a step-by-step process to solve a particular problem. To treat a common gastrointestinal problem, the mid-level health worker must associate the problem with a recognized pattern of care and have the skill to provide the care. To prevent a common gastrointestinal problem, the mid-level health worker must advise the patient about how to avoid getting the problem in the future. In the prototype curriculum each of these steps is called a duty. The duties of the task "diagnosing, treating, and preventing common gastrointestinal problems" are given below.

Job: Mid-level health worker

Category: General clinical

Task: Diagnosing, treating, and preventing common gastrointestinal problems

Duties: Take and record the medical history of all patients presenting with a gastrointestinal complaint
Give patients presenting with a gastrointestinal complaint a physical examination
Diagnose gastrointestinal problems:

- Amebiasis
- Giardiasis
- Peptic ulcer
- Gastroenteritis
- Roundworms
- Pinworms
- Tapeworms
- Hookworms
- Viral hepatitis
- Cirrhosis
- Acute abdomen
- Acute appendicitis
- Intestinal block
- Hemorrhoids
- Anal fissures

Treat and care for patients with gastrointestinal problems
Share with patients ideas on how to prevent and care for gastrointestinal problems
Give health workers, patients' families, and others advice on how to prevent and care for gastrointestinal problems

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The duties for each task further clarify the health worker's role. The step-by-step sequence of duties is the same for all the tasks that describe general clinical responsibilities. The duties for the other categories of tasks such as health center management, community health, and maternal and child health are slightly different. Examples of the duties for these tasks are given below.

Job: Mid-level health worker

Category: Health center management
Task: Managing the resources available at the health center level of the primary health care program
Duties:
Manage the drugs and medical supplies system in the health center
Manage the general supplies system in the health center
Manage the facilities and equipment maintenance system in the health center
Manage the transportation system at the health center level
Manage the communication system at the health center level
Manage the personnel system at the health center level
Manage the finance system at the health center level
Manage the health information system at the health center level
Manage the work place

Category: Community health
Task: Identifying the preventive health needs of the community
Duties:
Get to know the community
Work with community members to gather information
Find out about the environment
Find out about nutrition
Find out about the health and care of pregnant women, mothers, and newborns
Find out about the health and care of infants and children
Help community members choose priority health activities
Help community members decide how to carry out priority health activities
Help the community carry out priority health activities
Share health messages with community members

Category:	Maternal and child health
Task:	Providing individuals and couples with counseling and clinical services related to child spacing
Duties:	Take and record the medical history of women intending to use oral contraceptives or an IUD Give women intending to use oral contraceptives or an IUD a physical examination, including a pelvic examination Provide counseling about human reproduction, child spacing methods, abortion, and sterility Provide child spacing services

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The community health worker activities are analyzed and adapted in the same way as those of the mid-level health worker. Examples of the duties of a community health worker are given below.

Job: Community health worker

Category:	Community health
Task:	Preventing and caring for diarrhea in the community
Duties:	Prevent diarrhea in the community Care for children in the community with diarrhea

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Adapting the Duties for the Health Center Management Tasks

The mid-level health worker has specific responsibilities for planning and evaluating the primary health care services offered by the health team. In the prototype curriculum, the mid-level health worker is prepared to assume a leadership role at the health center. He is expected to make work plans, define and assign responsibilities to health team members, prepare work schedules, evaluate health team performance, and supervise the other members of the health team.

Group 1 of the adaptation team will adapt the duties for the health center management tasks. They will review and revise the lists of management duties in the prototype task analysis tables. They should consider these questions when they adapt the duties that describe the responsibilities of the health team:

Who are the members of the health team?

Are health workers at the health center currently carrying out the duties and skills listed on the prototype task analysis table?

Would assigning these responsibilities to the mid-level health worker improve health center services?

What personnel policies should be revised before the mid-level health worker can assume a leadership role at the health center?

The mid-level health worker also manages the resources of the health center. These include drugs and medical supplies, general supplies, facilities and equipment, and transportation, communication, and financial resources. The mid-level health worker helps other members of the health team provide effective and efficient patient and community services. He is also responsible for gathering, recording, and reporting information about health team activities.

Group 1 of the adaptation team should consider these questions when they adapt the task analysis tables for the mid-level health worker's responsibility as a manager of health center resources:

What facilities and equipment are available at the health center?

Will the mid-level health worker be given the authority and responsibility to carry out the duties and skills outlined in the task analysis table?

Are the policies, procedures, and forms contained in the Health Center Operations manual now in use at the health center level?

Adapting the Duties for the Community Health Tasks

The mid-level health worker is expected to assess the health status of the community, identify community health needs, and work with the community to carry out community health activities that will meet these needs. The mid-level health worker shares health messages with community members. He helps community members plan and carry out community health activities. He works with other development groups to prevent illness in communities. He trains community health workers and supports their efforts to develop good health practices in their communities.

Group 2 of the adaptation team will adapt the duties for the community health tasks. They should review and revise the lists of duties in the prototype task analysis tables for the community health modules. They should follow these guidelines:

a. Be sure the mid-level health worker's activities in providing preventive care and educational services to the community complement the efforts of the other members of the health team and of other development groups.

b. Define the extent to which the mid-level health worker will carry out community health activities on his own or in cooperation with the community or other health and development workers. The following table will help define these limits.

COMMUNITY HEALTH ACTIVITIES

ACTIVITIES THAT THE MID-LEVEL HEALTH WORKER CAN DO ALONE

1. Screen pregnant women for high risk factors
2. Screen children for symptoms and signs of skin diseases, worms, respiratory diseases, and diarrhea and dehydration
3. Screen children for nutritional problems and monitor growth and development
4. Monitor children for immunization status
5. Immunize children
6. Share health messages about waste disposal, pest control, clean water, nutrition, gardening, pregnancy, childbirth, child care, child development, breast-feeding, oral rehydration, and child spacing
7. Train and support community health workers

ACTIVITIES THAT REQUIRE THE SUPPORT AND SKILLS OF COMMUNITY MEMBERS OR OTHER SPECIALLY SKILLED HEALTH AND DEVELOPMENT WORKERS

1. Dig and protect wells
2. Protect springs
3. Build and take care of latrines
4. Make fertilizer from animal wastes and refuse
5. Control flies, mosquitoes, and rodents
6. Plant small home and community gardens
7. Control outbreaks of disease
8. Conduct school health activities

c. Develop a list of national or regional health and development programs to which mid-level health workers and community health workers could make significant contributions through community health activities.

d. Define the personnel and material resources that are available to support community health activities.

Group 2 also adapts the duties for community health worker tasks. The duties of community health workers emphasize their promotive and preventive roles in the community. The final list of duties that community health workers will be trained to perform depends on needs and conditions in the community. The promotive and preventive duties of community health workers should reflect the roles and activities of the community level workers.

To define the curative duties of community health workers the following guidelines may be helpful. Community health workers can care for:

Health problems that occur frequently in the community
Health problems that have a simple and effective treatment
Health problems that community members see as important
Health problems for which effective treatment exists that is better than local traditional methods

Adapting the Duties for the General Clinical and Maternal and Child Health Tasks

Groups 3 and 4 of the adaptation team will adapt the duties for the general clinical and maternal and child health tasks. Adapting the duties for the general clinical and maternal and child health tasks involves reviewing and revising the lists of:

Health problems that mid-level health workers will identify and treat or refer

Patient care procedures that mid-level health workers will perform

Supplies and equipment that mid-level health workers will use to perform patient care and other procedures

Drugs and medications that mid-level health workers will need to provide patient care

Reviewing and revising these lists first will save the adaptation team considerable time and effort during the adaptation of the task analysis table for each module. Obvious additions and deletions can be made in this preliminary step. The lists can be refined later in the task analysis table adaptation process.

a. Health problems

Administrators and clinicians who work in the system should decide which health problems mid-level health workers will treat or refer. The administrators and clinicians should know which health problems are common and important. They should also know the best way to care for people with these problems. They should consider these questions:

Which health problems are commonly seen in rural areas and are easily diagnosed?

Which health problems can be treated effectively with medications and procedures that are inexpensive and have few adverse effects?

Can patients with these health problems be effectively and safely cared for by the mid-level health worker if supplies and drugs are available? Are the required supplies and drugs available to the health worker?

What is the time and distance from the health center to the hospital?

How will the referral time affect what the worker does or does not do for the patient?

What health problems should the mid-level health worker always refer?

Are there some health problems for which the worker should always start treating the patient before referral? Are there others for which this is not a requirement?

After the patient has been seen by a health worker at the hospital, will he return to the mid-level health worker for follow-up care?

Think of other questions that can help you compile a list of health problems which are to be diagnosed, treated, referred, or followed up by mid-level health workers. Discuss these questions with other members of the adaptation team as you proceed with the adaptation process.

The health problems that are included in the prototype curriculum for mid-level health workers are listed in the following table by module. Review this list and decide which health problems you want to include in the mid-level health worker training curriculum. Add any health problems that do not appear on the list and that you want to include. Remember to include only common problems for which the mid-level health worker will have the tools for diagnosis and patient care.

RESPIRATORY AND HEART

Pneumonia
Acute bronchitis
Chronic bronchitis and emphysema
Bronchial asthma
Pleural effusion
Tuberculosis
Congestive heart failure
Rheumatic heart disease
Angina pectoris
Myocardial infarction
Hypertension

GASTROINTESTINAL

Amebiasis
Giardiasis
Peptic ulcer
Gastroenteritis
Roundworms
Pinworms
Tapeworms
Hookworms
Viral hepatitis
Cirrhosis
Acute abdomen
Acute appendicitis
Intestinal block
Hemorrhoids
Anal fissures

GENITOURINARY

- Urinary tract infection
- Stones in the urinary tract
- Nephritis
- Nephrotic syndrome
- Enlarged prostate gland
- Prostatitis
- Scrotal swelling
- Gonorrhea
- Syphilis

SKIN

- Impetigo
- Scabies
- Lice
- Ringworm
- Tinea versicolor
- Cellulitis
- Boils and abscesses
- Tropical ulcers
- Herpes simplex
- Eczema
- Onchocerciasis
- Contact dermatitis
- Skin reactions to drugs

DENTAL, EYES, EARS, NOSE, AND THROAT

- Sty
- Conjunctivitis
- Trachoma
- Cataracts
- Vitamin A deficiency
- Foreign body in the eye
- Cuts and ulcers in the cornea
- Eye emergencies
- Canker sores
- Gingivitis
- Acute ulcerative gingivitis
- Tooth decay
- Dental abscess
- Acute upper respiratory infection
- Acute otitis media
- Chronic otitis media
- Mastoiditis
- External otitis
- Wax in the ears
- Acute sinusitis
- Acute bacterial tonsillitis
- Foreign body in the ears, nose, and throat
- Nose bleeds

INFECTIOUS DISEASES

- Typhoid fever
- Tetanus in children and adults
- Rabies
- Malaria
- Louse-borne typhus
- Meningitis
- Diphtheria
- Leprosy

OTHER COMMON PROBLEMS

- Low back pain caused by muscle strain or sprain of the sacroiliac joint
- Low back pain caused by disk disease
- Osteoarthritis
- Rheumatoid arthritis
- Septic arthritis
- Simple goiter
- Hypothyroidism
- Hyperthyroidism
- Headache
- Stroke
- Grand mal epilepsy
- Petit mal epilepsy
- Anemia
- Cancer
- Diabetes mellitus
- Acute confusion
- Anxiety
- Depression
- Acute alcohol intoxication
- Chronic alcoholism

TRAUMA AND EMERGENCY

- Shock
- Unconsciousness
- Blocked airway
- Acute respiratory failure
- Snake bite
- Poisoning
- Bleeding
- Lacerations
- Fractures
- Sprains
- Dislocations
- First degree burns
- Second degree burns
- Third degree burns
- Trauma to the eye
- Trauma to the head
- Trauma to the spinal column
- Trauma to the chest
- Trauma to the abdomen

PRENATAL CARE

- Severe anemia
- Diabetes
- Heart disease
- Ectopic pregnancy
- Septic abortion
- Preeclampsia and eclampsia
- Fetal death
- Bleeding early in pregnancy
- Bleeding late in pregnancy
- Malaria
- Sickle cell disease

LABOR AND DELIVERY

- Fetal distress
- Maternal distress
- Urine in the bladder
- Premature labor
- Incomplete fetal rotation
- Small or abnormally shaped pelvis
- Early rupture of the bag of waters
- Retained placenta
- Prolonged labor
- Breathing problems of a newborn
- Face-up presentation
- Face presentation
- Breech presentation
- Transverse presentation
- Multiple pregnancy
- Prolapse of the cord
- Rupture of the uterus
- Preeclampsia or eclampsia
- Bleeding
- Postpartum bleeding
- Emergencies in a newborn

POSTNATAL CARE

- Swollen breasts
- Lack of breast milk
- Hemorrhoids
- Cracks on nipples
- Breast abscess
- Puerperal sepsis
- Unrepaired perineal tears
- Mother with a dead baby
- Cradle cap
- Diaper rash
- Colds
- Simple jaundice
- Simple swelling of the scalp
- Bleeding into the scalp
- Fractures
- Diarrhea
- Fever
- Low birth weight
- Jaundice
- A newborn without a mother

PROBLEMS OF WOMEN

- Pelvic inflammatory disease
- Non-specific vaginitis
- Trichomonal vaginitis
- Monilial vaginitis
- Cancer of the uterus or cervix
- Fibroid tumor in the uterus
- Tumor of the ovary
- Breast lumps
- Menstrual cramps
- Side effects of contraceptives
- Menopause
- Atrophic vaginitis

DISEASES OF INFANTS AND CHILDREN

- Malnutrition
- Diarrhea and dehydration
- Tetanus of the newborn
- Septicemia in the newborn
- Gonococcal conjunctivitis of the newborn
- Thrush in the newborn
- Croup
- Whooping cough
- Measles
- Mumps
- Chicken pox
- Poliomyelitis
- Rheumatic fever
- Sickle cell anemia
- Osteomyelitis

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b. Patient care procedures

After you identify the health problems that the mid-level health worker will care for, you must define the patient care procedures that he will be responsible for performing. Ministry of health administrators and the clinical and maternal and child health staff will help you determine the feasibility of training and equipping mid-level health workers to perform particular procedures.

For example, you might consider having mid-level health workers perform dental and obstetrical procedures. Both types of procedures require special training. Suppose, however, that the training staff cannot provide clinical training for these special procedures. Then it would be pointless to include these procedures in the task list. Furthermore, both of these types of procedures require special equipment. Even if training opportunities were available, equipment might not be available. If the equipment was not available, training would be useless.

Listed below, by module, are the patient care procedures included in the prototype curriculum. Review this list and decide which procedures you want to teach. Be sure to consider the limitations of time, practice, and equipment. Add any procedures that do not appear on the list that you want to teach.

RESPIRATORY AND HEART
- Collecting Sputum from a Suspected Tuberculosis Patient
- Giving an Intradermal Injection

GASTROINTESTINAL
- Passing a Nasogastric Tube

GENITOURINARY
- Testing Urine for Protein
- Catheterizing the Bladder of a Male

SKIN
- Using Soaks to Treat Skin Lesions
- Opening and Draining Boils and Abscesses

DENTAL, EYES, EARS, NOSE, AND THROAT
- Cleaning the Eyelids
- Application of Eye Ointment or Eye Drops
- Locating and Removing a Foreign Body from the Eye
- Scaling Teeth
- Local Dental Anesthesia
- Temporary Filling
- Dental Extraction
- Cleaning Pus from a Draining Ear
- Removing a Foreign Body from an Ear
- Removing a Foreign Body from a Child's Nose
- Removing a Foreign Body from the Throat
- Controlling Nose Bleeds
- Removing Wax from an Ear Canal

INFECTIOUS DISEASES
- Preparing Blood Smears for Diagnosis of Malaria

OTHER COMMON PROBLEMS
- Teaching a Patient How to Give Himself an Insulin Injection

TRAUMA AND EMERGENCY
- Starting an Intravenous Infusion in a Peripheral Vein
- Giving Intramuscular Injections
- Removing a Foreign Body from a Person's Throat with Your Fingers
- Using Back Blows to Clear a Person's Blocked Airway
- Using Manual Thrusts to Clear an Adult's Blocked Airway
- Performing Mouth-to-Mouth Respiration
- Applying a Pressure Dressing
- Using a Tourniquet to Control Bleeding
- Cleaning Lacerations
- Giving a Local Anesthetic
- Removing Dead Tissue from a Wound
- Suturing Superficial Lacerations Using a Simple, Interrupted Stitch
- Applying a Triangular Bandage to Hold Dressings to a Shoulder, Hip, or Groin

Applying a Triangular Bandage to Hold Dressings to an Elbow or Knee
Applying a Triangular Bandage to Hold Dressings to a Hand, Foot, or Stump
General Considerations for Splinting of Fractures of the Arms and Legs
Splinting a Fractured Upper Arm
Splinting a Fractured Forearm or Wrist
Splinting a Fractured Shoulder Blade
Splinting a Fractured Collar Bone
Splinting a Fractured Upper Leg
Splinting a Fractured Lower Leg
Splinting a Fractured Knee Cap
Splinting a Fractured Ankle or Foot
Using a Triangular Bandage to Make an Arm Sling
Restoring a Dislocated Shoulder
Bandaging a Sprained Joint
Applying a Triangular Bandage to the Scalp and Head
Applying a Triangular Bandage to the Chest or Back
Placing a Patient with a Possible Fracture of the Spinal Column on a Blanket
Placing a Patient on a Stretcher Using a Blanket and the Help of Six People
Placing a Patient on a Stretcher with the Help of Four People, but without Using a Blanket
Placing a Patient in the Recovery Position

LABOR AND DELIVERY

Assisting a Delivery in a Home
Assisting a Delivery in a Health Center
Performing and Repairing an Episiotomy
Cutting an Umbilical Cord
Repairing Perineal Lacerations
Manually Removing a Placenta
Assisting Delivery in a Multiple Pregnancy
Assisting Delivery in a Breech Presentation

DISEASES OF INFANTS AND CHILDREN

Preparation and Use of Oral Rehydration Fluid
Scalp Vein Intravenous Rehydration
Peripheral Vein Intravenous Rehydration
Teaching Mothers How to Express Breast Milk
Feeding a Baby by Nasogastric Tube
Preparation of Super Porridge

CHILD SPACING

Finding the Correct Size Diaphragm for a Woman
Teaching a Woman to Use a Diaphragm
Inserting an Intrauterine Device (IUD)
Removing an Intrauterine Device (IUD)

c. Supplies and equipment

Listed below, by module, are the main supplies and equipment that the mid-level health worker will need to perform the patient care procedures in each module. The supplies and equipment are detailed by procedure in the Patient Care Procedures reference manual. Review the equipment needed for each procedure that you have selected. If the equipment will be available to the mid-level health worker during and after training, it is reasonable to teach the procedure. If the equipment will not be available, you must decide to either order the equipment or eliminate the procedure. Add the necessary equipment for any procedures that you added. Delete the equipment for any procedures that you deleted.

RESPIRATORY AND HEART

Hypodermic needle, Luer fitting 26G
2 ml Luer type hypodermic syringe
Sputum container

GASTROINTESTINAL

Adhesive tape
Basin
Flipchart-sized paper
Nasogastric tube
90 ml Luer type irrigating syringe
Towel
Tubing clamp

GENITOURINARY

Basin
Cotton
Gloves
Indicator paper for testing urine
Tubing clamp
Urethral catheter
Urine jar

SKIN

Bulb syringe
Gauze pads
Scalpel and blades

DENTAL, EYES, EARS, NOSE, AND THROAT

Adhesive tape
Basin
Cartridge type dental syringe
Cement spatula

Cotton
Cotton rolls, dental
Cotton-tipped applicators
Cowhorn tooth extracting forceps
Dental hypodermic needle, cartridge type
Dental scaler
Ear syringe
Gauze pads
Hemostatic forceps
Hollenback or Ward carver
90 ml Luer type irrigating syringe
Long forceps
Mouth examining mirror
Nasal speculum
Needle holder
No. 5 dental explorer
Smooth 5 cm by 12 cm glass surface
Sterile pads
Straight root elevator
Suture, chromic catgut, 00
Suture needle, taper point
Tongue depressor
Towels
Universal tooth extracting forceps

INFECTIOUS DISEASES

Blood lancet
Container for shipping slides
Cotton
Microscopic slides

OTHER COMMON PROBLEMS

Cotton
1 ml Luer type insulin syringe
Hypodermic needle, Luer fitting 25G

TRAUMA AND EMERGENCY

Ace bandage, elastic
Adhesive tape
Arm board
Bandage gauze
Cotton
Curved dissecting forceps
Drape
Gauze pads
Gloves
Hemostatic forceps
Hypodermic needle, Luer fitting 18G

Hypodermic needle, Luer fitting 24G
2 ml Luer type hypodermic syringe
10 ml Luer type hypodermic syringe
Intravenous tubing
Manikin for practicing mouth-to-mouth respiration
Needle holder
Razor blade
Rubber tourniquet
Scalpel and blades
Scissors
Sheet, blanket, or towel
Splints
Sterile probe
Sterile thumb forceps
Stretcher or board
Suture, chromic catgut, 00
Suture needle, 3/8 circle cutting
Triangular bandages

LABOR AND DELIVERY

Allis tissue forceps
5 ml Luer type anesthetic syringe
Basin
Cotton
Delee tracheal catheter
Episiotomy scissors
Fetoscope
Gauze pads
Hand brush
Hemostatic forceps
Hypodermic needle, Luer fitting 20G
Hypodermic needle, Luer fitting 24G
10 m Luer type hypodermic syringe
Infant size nasal aspirator
Nail file
Needle holder
Perineal pad
Rat tooth tissue forceps
Razor
Scissors
Sheet
Sterile surgical gloves
Suture, chromic catgut, 2-0 and 3-0
Suture needle, taper point
Suture scissors
Umbilical ties

DISEASES OF INFANTS AND CHILDREN

- Adhesive tape
- Arm board
- Cotton
- Flipchart on super porridge preparation
- Gauze pads
- Hypodermic needle, Luer fitting 18G
- Hypodermic needle, Luer fitting 22G
- 20 ml Luer type hypodermic syringe
- Infusion set, scalp vein
- Intravenous tubing
- Nasogastric tube
- Razor
- Rubber tourniquet
- Sheet, blanket, or towel
- Tubing clamp

CHILD SPACING

- Basin
- Diaphragms, assorted sizes
- Drape
- Flipchart on child spacing methods
- Gauze pads
- Gloves
- Intrauterine device (IUD) with inserter
- Long forceps
- Vaginal speculum

The prototype training program also prepares the mid-level health worker to perform skills other than the ones listed in the Patient Care Procedures reference manual. In order to perform these skills, the mid-level health worker needs certain additional items of equipment. If these items are not routinely available at the work site, you must adjust the training activities accordingly. The following is the list of additional equipment, by module.

IDENTIFYING THE PREVENTIVE HEALTH NEEDS OF THE COMMUNITY

- Flipchart-sized paper
- Growth charts
- Marking pen
- Scale
- Tape measure

MEETING THE PREVENTIVE HEALTH NEEDS OF THE COMMUNITY

Name tags

PHYSICAL EXAMINATION

Apron or gown
Chairs
Cotton
Desk
Drape
E type vision chart
Examination table
Flashlight
Gloves
Indicator paper for testing urine
Lubricant
Nasal speculum
Pin
Scale
Sphygmomanometer
Stethoscope
Tape measure
Thermometer
Tongue depressor
Urine jar
Vaginal speculum

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d. Drugs

Listed below, by category of use, are the drugs and medications that the mid-level health worker will need to provide patient care. More information about the problems for which a specific drug or medication is used can be found in the Formulary. The availability of required drugs or medications will dictate what common problems the health worker must be trained to diagnose, treat, refer, or follow-up.

ANTHELMINTICS

Niclosamide
Piperazine hydrate
Bephenium hydroxynaphthoate
Tetrachlorethylene
Pyrantel pamoate
Diethylcarbamazine citrate

ANTIBACTERIALS

- Ampicillin
- Benzylpenicillin G
- Benzathine penicillin
- Penicillin V
- Procaine penicillin G
- Chloramphenicol
- Erythromycin
- Tetracycline hydrochloride
- Sulfadiazine
- Sulfadimidine
- Dapsone
- Streptomycin sulfate
- Isoniazid
- Para-aminosalicylic acid
- Thiacetazone

ANTI-PROTOZOANS

- Metronidazole
- Mepacrine hydrochloride
- Quinine dihydrochloride
- Chloroquine phosphate

ANTI-FUNGAL

- Griseofulvin

GASTROINTESTINAL DRUGS

- Antacids
  - Alumina and magnesia
- Emetic Agent
  - Ipecac syrup
- Anti-Hemorrhoidal Agents
  - Lignocaine and hydrocortisone rectal suppository
  - Mineral oil
- Laxative
  - Magnesium sulfate crystals
- Replacement Solution
  - Oral rehydration powder

RESPIRATORY TRACT DRUGS

- Bronchodilators
  - Aminophylline
  - Epinephrine
- Cough Expectorant
  - Glyceryl guaiacolate

REPLACEMENT SOLUTIONS

- Dextrose, 5% in water
- Dextrose, 5% in 1/2 normal saline
- Normal saline
- Ringer's lactate
- Glucose, 50% solution
- Other
  - Sterile water for injection

VACCINES

- BCG vaccine
- DPT vaccine
- DT vaccine
- Measles vaccine
- Poliomyelitis vaccine
- Tetanus toxoid

DRUGS ACTING ON THE HEART

- Anti-Anginal
  - Glyceryl trinitrate
- Diuretic
  - Hydrochlorothiazide
- Other
  - Digoxin

DRUGS ACTING ON THE SKIN AND MUCOUS MEMBRANES

- Drug that Shrinks Mucous Membranes
  - Phenylephrine hydrochloride
- Antiseptic Solutions
  - Povidone-iodine, 10% solution
  - Hydrogen peroxide, 3% solution
- Anti-Inflammatory
  - Hydrocortisone, 1% ointment
- Anti-Fungals
  - Gentian violet, 1% solution
  - Whitfield's ointment
  - Nystatin vaginal suppository tablets
  - Nystatin oral suspension
- Anti-Scabies, Anti-Lice
  - Benzyl benzoate, 25% lotion
  - Gamma benzene hexachloride
  - DDT, 10% powder
- Others
  - Selenium sulfide, 2.5% lotion
  - Petrolatum ointment
  - Triple sulfa vaginal suppository tablets

Calamine lotion
Diethylstilbestrol vaginal suppository

Local Anesthetics
Lidocaine without epinephrine
Lidocaine, 2% with epinephrine 1:80,000

DRUGS ACTING ON THE NERVOUS SYSTEM

Analgesics
Aspirin
Morphine sulfate
Pethidine hydrochloride

Anticonvulsants
Phenobarbital
Amobarbital sodium
Diazepam
Phenytoin sodium
Ethosuximide
Magnesium sulfate, 50% solution

Insecticide Poisoning Antidote
Atropine sulfate

Anti-Migraine
Ergotamine tartrate and caffeine

Psychotherapeutic
Chlorpromazine hydrochloride

DRUGS ACTING ON THE EYE

Tetracycline, 1% eye ointment
Silver nitrate, 1% solution
Penicillin G eye ointment

ANTI-ALLERGY
Chlorpheniramine maleate

ANTI-INFLAMMATORY

Betamethasone

OTHER

Probenecid

VITAMINS AND MINERALS

Ferrous sulfate
Folic acid
Iron and folic acid
Vitamin A

OBSTETRICAL AND CHILD SPACING

Ergonovine maleate
Oral contraceptives
Spermicides

4.4 ADAPTING THE LISTS OF SKILLS AND KNOWLEDGE

The last step in the process of adapting the task analysis tables is to identify the skills and knowledge that the health worker must have to perform each duty. The skills may be of three kinds. They may involve the eyes or hands. These are psychomotor skills. They may involve explaining, persuading, or listening. These are communication skills. Or, they may be thinking skills that involve analysis and decision-making.

A health worker needs certain knowledge in order to learn and perform these skills. For example, in order to decide how to treat a patient with a respiratory or heart problem, the student must know the correct medical treatment for each common respiratory and heart problem, the properties of drugs and medications for respiratory and heart problems, and the side effects and contraindications of the drugs and medications. In the same way, in order for the student to counsel patients about home care, medications, and prevention of gastrointestinal problems, he must know recommended home care procedures, the prescribed drugs and dosages for each gastrointestinal problem, and ways to prevent gastrointestinal problems.

The resulting set of skills and knowledge tells the student what is required for successful performance of his job. These requirements are called competencies. Training designed to ensure that a student possesses each of the required competencies is called competency-based training.

ACTIVITY 7

Deciding on the Tasks that Mid-Level and Community Health Workers Will Perform

The adaptation team will adapt the training curriculum to reflect the tasks that the students will be expected to perform as mid-level health workers. You will guide the adaptation team in deciding on the tasks that mid-level health workers will perform.

Follow these steps.

1. Review the guidelines for curriculum adaptation that were developed in the needs assessment in Section 2. These guidelines outline the roles and responsibilities of the mid-level health worker and the management systems that will support the provision of primary health care services so that he can meet community health needs.
2. List the tasks that the mid-level health worker should carry out to effectively meet these needs within the established guidelines. List tasks for each of these categories:

   Health center management
   Community health
   General clinical
   Maternal and child health

The completed list of tasks will help the adaptation team adapt the task analysis tables and ultimately adapt the student texts and reference manuals.

ACTIVITY 8

Deciding on the Health Problems that Mid-Level Health Workers Will Identify and Treat or Refer

Gather and discuss current epidemiological reports of disease prevalence in the country, if they are available and accurate. Review these reports with the adaptation team. Then decide on the health problems that mid-level health workers will identify and treat or refer. Follow these steps.

1. Review the list of common health problems included in the prototype curriculum.
2. Adapt the list to reflect the specific health needs of the country. Delete problems that occur rarely or not at all. Add problems that are common or serious.
3. Consider all levels of responsibility as you adapt the list. Include all health problems that the mid-level health worker must diagnose. Then, for each health problem, decide if the mid-level health worker should provide care, provide care and refer, or refer. Decide which health problems require follow-up. Remember that final decisions about care are influenced by the diagnostic skills to be taught to the worker, as well as ministry of health drug policies, drug availability, and supervisory procedures.

The completed list of health problems will help the adaptation team adapt the task anlaysis tables for mid-level health workers.

ACTIVITY 9

Deciding on the Patient Care Procedures that Mid-Level Health Workers Will Perform

With the adaptation team, decide on the patient care procedures that mid-level health workers will perform. Follow these steps.

1. Review the list of patient care procedures included in the prototype curriculum.
2. Adapt the list to reflect:

   Health problems selected for diagnosis and care by mid-level health workers

   Feasibility of training mid-level health workers to safely perform a procedure in a remote health center without direct supervision
3. List by module the procedures to be performed by mid-level health workers.

The completed list of procedures will help the adaptation team adapt the task analysis tables for mid-level health workers.

ACTIVITY 10

Deciding on the Supplies and Equipment that Mid-Level Health Workers Will Need to Perform Patient Care and Other Procedures

After deciding on the patient care procedures that the mid-level health worker will perform, decide what supplies and equipment the mid-level health worker will use to perform each procedure. Decide what supplies and equipment the mid-level health worker will need to carry out other types of procedures as well. Follow these steps.

1. Review the list of supplies and equipment included in the prototype curriculum for each procedure.
2. Adapt the list to reflect:

   Availability of the supplies and equipment at health centers
   Feasibility of training mid-level health workers to safely use the supplies and equipment in a remote health center without direct supervision
3. List by module the supplies and equipment that mid-level health workers will use to perform patient care and other procedures.

The completed list of supplies and equipment will help the adaptation team adapt the task analysis tables for mid-level health workers.

ACTIVITY 11

Deciding on the Drugs and Medications that Mid-Level Health Workers Will Need to Provide Patient Care

With the adaptation team, decide which drugs and medications the mid-level health worker will be allowed to use and dispense. Follow these steps.

1. Review the national formulary or the list of drugs and medications currently available in the country.
2. Review the list of drugs and medications included in the prototype curriculum. Compare the prototype list with the list of drugs and medications available in your country.
3. Adapt the prototype list to reflect:

   Drugs needed to provide patient care
   Established guidelines related to which drugs mid-level health workers will be allowed to use and dispense
   Availability of a particular drug at the health center
   The expense of supplying the health center with a particular drug
   The efficacy of the drug
   The feasibility of training mid-level health workers to safely use the drug at a remote health center

The completed list of supplies and equipment will help the adaptation team adapt the task analysis tables for mid-level health workers.

ACTIVITY 12

Adapting the Task Analysis Tables for Mid-Level and Community Health Workers

With the adaptation team, adapt all of the prototype task analysis tables for mid-level and community health workers. Follow these steps:

1. Gather the prototype task analysis tables for mid-level and community health workers and the adapted lists of health problems, procedures, supplies and equipment, and drugs and medications. The mid-level health worker task analysis tables appear in the student texts of the modules. The community health worker task analysis tables appear in Appendix B of this manual.
2. Review the procedures for developing task analysis tables.
3. Divide the task analysis tables into the following categories:

Health center management	General clinical
Community health	Maternal and child health

4. Work in groups to adapt the prototype task analysis tables. Group 1 will adapt the task analysis tables for the health center management materials. Group 2 will adapt the task analysis tables for the community health materials. Groups 3 and 4 will adapt the task analysis tables for the general clinical and maternal and child health materials.

   Review the duties to see if they acceptably present the steps involved in completing the designated task. Revise the duties if necessary.

   For each duty, identify the necessary skills and knowledge. Consider each duty in turn. Ask these questions:

   > In order to perform this duty, is it necessary to perform a procedure?
   >
   > In order to perform this duty, is it necessary to explain something or discuss some information?
   >
   > In order to perform this duty, is it necessary to make any decisions?

   Remember that there are three kinds of skill: those that are performed with the hands, those that involve communication, and those that involve decision-making. For each skill, consider what knowledge is essential in helping the students perform the skill. Here you are not concerned with what it would be nice for the students to know. Consider only what they must know.

ADAPTING THE TASK ANALYSIS TABLES FOR MID-LEVEL AND COMMUNITY HEALTH WORKERS

TASK ANALYSIS TABLE

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
The MLHW will:	The MLHW trainee will demonstrate his ability to:	The MLHW trainee will demonstrate his knowledge of:

SECTION 5

Adapting the Student Texts and Reference Manuals

PROGRAM MANAGER'S GUIDE

OBJECTIVES

After completing the activities in this section, you should be able to:

1. Describe the content and format of the prototype training curriculum to members of the adaptation team
2. Review and adapt all of the prototype student texts and reference manuals

To achieve these objectives, you must know:

1. The content and format of the prototype modules and reference manuals for mid-level health workers
2. The training phases and the sequence of learning activities for each phase
3. The procedure for adapting the student texts and reference manuals
4. How to help the adaptation team adapt the student texts and reference manuals

ACTIVITIES

1. Review the description of the content and format of the training curriculum and the sequence of training in Section 5.
2. Explain to the adaptation team the sequence of training activities.
3. Review the procedure for curriculum adaptation described in Section 5.
4. Adapt the learning objectives in the student guides.
5. Lead the adaptation team through the process of adapting the student texts and reference manuals.
6. Help the adaptation team plan their adaptation activities.

RATIONALE

Competency-based training programs match training efforts to job responsibilities. Competency-based training methods and materials prepare workers to perform a given set of job skills. You have defined these job skills in Section 4. Now you can review and adapt the student training materials to reflect these skills. The student training materials

are the student texts and the reference manuals. Groups of technical specialists adapt the content of these materials. You guide the activities of these specialists by: explaining the training program and the adaptation process, negotiating group and individual assignments for adaptation, establishing an adaptation schedule, and monitoring and helping the groups as needed.

This section reviews the prototype curriculum and training sequence. It also contains information, ideas, and experiences that will help you manage the adaptation process and help others carry out the adaptation activities.

PROGRAM MANAGER'S NOTE

COMPETENCY-BASED TRAINING PROGRAMS LINK COMMUNITY NEEDS AND HEALTH CARE SERVICES.

5.1 THE PROTOTYPE CURRICULUM

The prototype curriculum for mid-level health workers and community health workers includes:

Twenty-two mid-level health worker modules
Five reference manuals for mid-level health workers
Eight community health worker workbooks
Community learning materials for community health workers

5.2 MODULES

The module is the basic training material for mid-level health workers. Each module consists of a student text and an instructor's manual. The student text and the instructor's manual are designed to be used together. Each module provides objectives for students and instructors, information and activities for the student, lesson plans for the instructor, and evaluation tools to assess knowledge and skills. Taken alone, each module is a self-contained resource that presents portions of a teaching program. Taken as a set, the twenty-two modules contain all the teaching and learning information that is needed to carry out the training program.

Student Text

Each student text has a task analysis table, a schedule, an introduction, and a series of module units.

a. Task analysis table

The task analysis table outlines the work requirements and the training requirements of the mid-level health worker. It is the single source of information to the students and the instructor about the goals toward which they are working.

b. Student's schedule

The student's schedule shows the sequence of activities for studying the module. The daily schedule contains morning and afternoon ses-

sions of approximately three hours each for a total of six hours a day. At the bottom of every schedule is a reference to planning additional practice opportunities for skill development, clinical rotation, and community phase activities.

c. Introduction

The introduction to each module prepares the students to take part in the learning activities. The introduction:

Describes the information and skills that the students should have before they start the module

Advises the students about how to take part in the learning process

Describes how and when the students' knowledge and skills will be assessed

Select a student text and look at the introduction section. Answer these questions:

What must the student know and do before he begins the module?

How should the student prepare for a teaching session?

When will the student be evaluated on skill performance?

d. Module units

A competency-based training program encourages the students to develop a learning style that is active and self-directed. A series of units in each module support and develop this learning style. Each unit includes a student guide and the narrative for the particular subject area to be studied. Most units also include review questions, review exercises, and one or more skill checklists.

The student guide that begins each unit states the objectives for that unit and describes the learning activities that will help the student acquire the skills and knowledge to meet the objectives. The objectives in the student guide are derived from the skills and knowledge in the task analysis table.

Unit 1

Assessing Patients with Gastrointestinal Problems

TASK ANALYSIS TABLE

Diagnosing, treating and preventing common gastrointestinal problems

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
2. Give patients presenting with a gastrointestinal complaint a physical examination	2.1 Identify the following signs of gastrointestinal problems: Abdominal swelling Guarding, tenderness in the abdomen Rebound tenderness Ascites Enlarged and tender liver, spleen Jaundice Dehydration Anemia High pitched percussion note Increased or decreased bowel sounds Enlarged anal vessels Anal fissures	2.1.1 The anatomy and physiology of the gastrointestinal system 2.1.2 The definition of common physical signs associated with gastrointestinal problems
	2.2 Give a physical examination for gastrointestinal problems and record the findings. Inspect, palpate, percuss, and auscultate the abdomen. Examine the anus.	2.2.1 How to use forms for writing down the findings of a physical examination

STUDENT GUIDE

OBJECTIVES

1. Describe the significance of the following signs of abnormal gastrointestinal conditions:
   - Abdominal swelling
   - Guarding, tenderness in the abdomen
   - Rebound tenderness
   - Ascites
   - Enlarged and tender liver, spleen
   - Jaundice
   - Dehydration
   - Anemia
   - High pitched percussion note
   - Increased or decreased bowel sounds
   - Enlarged anal vessels
   - Anal fissures
2. Identify these signs when you see or hear them in a patient.
3. Interview a patient to obtain information about his gastrointestinal problem.
4. Examine a patient with a gastrointestinal problem, using the proper procedure.
5. Record the findings of the interview and examination on official forms in the recommended way.

Select a student text and look at the student guide for one unit. Answer these questions:

Do the objectives in the student guide give the student a clear description of what he must achieve?

Do the learning activities provide sufficient opportunity for both skill development and knowledge acquisition?

The narrative for the unit follows the student guide. The narrative includes the basic knowledge that the student needs to perform some part of his job. The learning objectives listed in the student guide determine the knowledge content and level of detail of the narrative.

A set of review questions follows the narrative section of most units. These questions highlight and apply the knowledge that has been presented in the unit. The students are expected to answer these questions after reading the unit. Some students will be able to answer the questions without referring to the unit, but most will review the unit to find the answers.

Many units also include review exercises. Typically, these exercises require the students to solve practical problems. For example, the general clinical modules contain case studies about patient problems. These case studies give students information about a patient's presenting complaint, medical history, and physical examination findings. Students are expected to review the information, determine a diagnosis, and decide how to care for the patient.

Whenever a new procedure is taught in a particular unit, a skill checklist outlines the steps in the procedure. Students use the checklists as they practice the procedure. Supervisors use the same checklist to evaluate the students' performance of the skill. The learning activities for the unit provide the students with opportunities to use the skill checklists to practice patient care procedures in clinical settings.

Instructor's Manual

Each student text has a corresponding instructor's manual. The instructor's manual describes the instructor's role in helping the students attain the training objectives. Each instructor's manual includes an instructor's schedule, a series of teaching plans for each unit in the student text, and the answers to the review questions and review exercises.

a. Instructor's schedule

The instructor's schedule shows the sequence of activities for teaching the module.

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b. Teaching plans

The teaching activities are organized in a detailed set of plans. The teaching plans are written for an instructor who has some basic teaching skills but whose primary skills are in a technical aspect of health care.

Each teaching plan follows the same format. First, the objectives are presented. Then the instructor is given the information he needs to prepare for the session. The suggested learning activities are presented along with an estimate of the time required to complete each activity.

c. Answers to review questions and review exercises

The instructor's manuals also contain the answers to the review questions and review exercises corresponding to each unit in the student text.

Select an instructor's manual. Answer these questions:

Do the learning activities help the student acquire the skills and knowledge described in the objectives?

Does the instructor need any additional information in order to carry out the learning objectives?

Section 7 includes additional information about the instructor's manuals and how they are to be adapted.

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
2. Give patients presenting with a gastrointestinal complaint a physical examination	2.1 Identify the following signs of gastrointestinal problems: Abdominal swelling Guarding, tenderness in the abdomen Rebound tenderness Ascites Enlarged and tender liver, spleen Jaundice Dehydration Anemia High pitched percussion note Increased or decreased bowel sounds Enlarged anal vessels Anal fissures	2.1.1 The anatomy and physiology of the gastrointestinal system 2.1.2 The definition of common physical signs associated with gastrointestinal problems
	2.2 Give a physical examination for gastrointestinal problems and record the findings. Inspect, palpate, percuss, and auscultate the abdomen. Examine the anus.	2.2.1 How to use forms for writing down the findings of a physical examination

STUDENT GUIDE

OBJECTIVES

1. Describe the significance of the following signs of abnormal gastrointestinal conditions:
   - Abdominal swelling
   - Guarding, tenderness in the abdomen
   - Rebound tenderness
   - Ascites
   - Enlarged and tender liver, spleen
   - Jaundice
   - Dehydration
   - Anemia
   - High pitched percussion note
   - Increased or decreased bowel sounds
   - Enlarged anal vessels
   - Anal fissures
2. Identify these signs when you see or hear them in a patient.
3. Interview a patient to obtain information about his gastrointestinal problem.
4. Examine a patient with a gastrointestinal problem, using the proper procedure.
5. Record the findings of the interview and examination on official forms in the recommended way.

Teaching Plan 1

Recognizing the Signs of Abnormal Gastrointestinal Conditions

OBJECTIVES

1. Describe the significance of the following signs of abnormal gastrointestinal conditions:
   - Abdominal swelling
   - Guarding, tenderness in the abdomen
   - Rebound tenderness
   - Ascites
   - Enlarged and tender liver, spleen
   - Jaundice
   - Dehydration
   - Anemia
   - High pitched percussion note
   - Increased or decreased bowel sounds
   - Enlarged anal vessels
   - Anal fissures
2. Identify these signs on a patient.

METHODS: Self-instruction, discussion, slide presentation, practice with patients if they are available, instructor demonstration, student practice

MATERIALS: Student Text – Unit 1, slides of the digestive system, slide narrative, projector, screen

PREPARATION: Complete your analysis of pretest results. Assign each student to a small working group of three to four persons. Each group should include students with high pretest scores and students with low pretest scores.

Select and clean slides. Check and set up a projector and screen.

Identify patients with signs of abnormal gastrointestinal conditions.

Tell students to review the anatomy and physiology of the gastrointestinal system and the Medical History and Physical Examination modules.

Also, tell students to read the Student Text for Unit 1 and answer the review questions.

TIME: 3 hrs

LEARNING ACTIVITIES	
1. Instructor introduces and explains the Task Analysis Table.	15 min
2. Instructor presents slides on the anatomy and physiology of the digestive system.	15 min
3. Instructor demonstrates on a patient or student the exact location of the gastrointestinal organs and other organs in the abdominal cavity.	20 min
4. Students and instructor discuss the abnormal physical signs associated with gastrointestinal problems and their relation to the anatomy and physiology of the gastrointestinal system.	45 min
5. Students work in their work groups to recognize and identify abnormal physical signs in patients with gastrointestinal problems. Bring patients into the classroom if possible. Students have the opportunity to observe and auscultate these patients.	1 hr
6. Students and instructor discuss any questions about their work with the patients.	15 min
7. Instructor evaluates what the students have learned with an informal posttest.	10 min

5.3 REFERENCE MANUALS

Five reference manuals supplement the modules. The manuals contain technical information to support the work of the mid-level health worker during the training program and after graduation. The five reference manuals are:

Formulary
Diagnostic and Patient Care Guides
Patient Care Procedures
Health Center Operations
Community Health

Formulary

The Formulary lists all of the drugs available for use by mid-level health workers. The introduction outlines guidelines for prescribing and dispensing drugs. Then follows a description of each drug that includes the uses and dosages, contraindications, and known side effects. Storage guidelines and patient instructions are also provided.

Diagnostic and Patient Care Guides

The Diagnostic and Patient Care Guides provide the mid-level health worker with a quick reference to the medical history and physical examination points that are critical in identifying a patient's problem. They also provide detailed treatment plans for each of the health problems discussed in the training modules.

Patient Care Procedures

The Patient Care Procedures are step-by-step descriptions of procedures used in carrying out treatment plans. Included for each procedure is a list of required equipment and supplies, a brief statement of the purpose of the procedure, and a step-by-step description of how to carry out the procedure.

4.2 PROSTATITIS

Clinical Picture

a. Presenting complaint

The prostate gland in men of any age can become infected. Patients with bacterial infection in their prostate gland will complain of *pain* at the *base* of the *penis*, and in the surrounding muscles between the penis and the anus. They often feel a burning pain and frequently urinate.

b. Medical history

The patient with prostatitis may have a history of gonorrhea and urinary tract infection which can lead to infection in the prostate gland.

c. Physical examination

Examine the *prostate gland*. It will be very *soft* and very *tender*. If you press on the prostate, it will cause a *discharge from* the *penis*.

Course and Complications

Acute prostatitis may develop into a chronic problem. Infection in the prostate gland increases the chance of urinary tract infection.

Patient Care

Give the patient with acute infection of the prostate gland a course of tetracycline for two weeks. Encourage him to drink extra fluids and rest. See Patient Care Guides.

Give the patient with chronic prostatitis a course of tetracycline. In addition, massage his prostate gland vigorously once a week until the gland feels firm and is no longer tender. Massaging the prostate will help drain the gland of small areas of pus.

PROSTATITIS

Symptoms

Pain at the base of the penis
Burning on urination
Increased frequency of urination
Possible gonorrhea or urinary tract infection

Signs

Very tender, enlarged prostate gland that is soft on palpation
Discharge from penis on palpation of prostate gland

Patient Care

Acute Infection

a. Encourage the patient to remain in bed. Give him aspirin every four hours. Advise him to drink an extra amount of fluid.

b. Give the patient a course of tetracycline. Tell him to take 500 mg every six hours for two weeks.

Chronic Infection

a. Give the patient a course of tetracycline. However, antibiotic treatment may not be effective because the drug does not reach the bacteria within the gland.

b. Massage the prostate gland firmly and vigorously each week. This will help to force pus out of small pockets within the gland.

ANTIBACTERIALS

TETRACYCLINE HYDROCHLORIDE

Form

Capsules, 125 mg and 250 mg

Uses

Tetracycline is effective in certain types of infections for which penicillin is not effective. These include urinary tract infections, prostatitis, chronic bronchitis, typhus, bacterial gastroenteritis, and trachoma.

If erythromycin is not available, use tetracycline in patients who are allergic to penicillin, although tetracycline may not be effective in every case.

Dosages

In older children and adults, give the drug every six hours for the length of time indicated by the Diagnostic and Patient Care Guide for the specific condition you are treating.

	MILD TO MODERATE INFECTION	SEVERE INFECTION
Adults and children 40 kg and over	250 mg	500 mg
Children 20 to 40 kg	125 mg	250 mg

Continue treatment for at least five days, or until the condition has improved. Do not give tetracycline for more than ten days except when the longer course is called for in the Diagnostic and Patient Care Guide for specific diseases, such as prostatitis.

Side Effects

Tetracycline may cause vomiting, nausea, and diarrhea. The patient may also develop thrush. Other toxic effects are rare.

Health Center Operations

The Health Center Operations manual contains the official policies, administrative procedures, and forms that are used at the health center level to manage primary health care services. This manual complements the two management training modules for the mid-level health worker: Working with the Health Team and Working with Support Systems. In addition to sections on the eight management support systems, it contains sections on facility operations, primary health care organization and functions, and evaluation and planning systems. In cases where existing health care systems do not have appropriate or adequate policies, forms, and administrative procedures, the examples contained in this manual will serve as models that can be copied and adapted.

Community Health

The Community Health manual supplements the Identifying the Preventive Health Needs of the Community module and the Meeting the Preventive Health Needs of the Community module. The manual is divided into five sections:

Resources and Information for Planning and Carrying Out Community Health Activities

The Health and Care of Mothers and Children

Nutrition

Environmental Health

Community Health Survey Report

Each section contains charts, tables, schedules, checklists, step-by-step instructions, or simple lists that relate to the subject area in that section.

5.4 MATERIALS FOR TRAINING COMMUNITY HEALTH WORKERS

Mid-level health workers use a set of eight workbooks and supporting community learning materials to train community health workers.

Workbooks

The set of eight workbooks is the basic training program for community health workers. The mid-level health workers learn to use the workbooks during their training. The workbooks prepare the community health worker to identify health problems in the community and to discuss

methods for maintaining good health among members of the community. The mid-level health worker uses two or three workbooks for each community health worker training course. The mid-level health worker follows the initial training course with regularly scheduled training courses every three or four months.

The subjects covered in the workbooks include:

Keeping the water and the community clean

Preventing diarrhea

Having a healthy pregnancy

Feeding and caring for children

Preventing and caring for common health problems

Preventing the spread of tuberculosis and leprosy

Preventing and caring for minor injuries and accidents

Mid-level health workers use the workbooks with community health workers as they discuss the community's health problems and solutions for these problems. The workbooks allow the learning to take place through an exchange of ideas among the trainer and the trainees. The workbooks should be translated into the language that community health workers speak or read.

Community Learning Materials

Community learning materials support the training of community health workers. Community health workers in turn use these materials to help community members discuss and understand causes of health problems. The community learning materials include stories and problem-solving materials about health and health problems. Community members are encouraged to think about finding ways to stay healthy and to solve some of their common health problems. The community learning materials are:

Health Problems in the Community
Caring for Your Child
Caring for Your Sick Child
Clean Home and Clean Community
Illustrations for Training Community Health Workers

5.5 THE TRAINING SEQUENCE

Students acquire the knowledge and skills presented in the student texts and reference manuals during a training program that lasts approximately fifteen months, or sixty-four weeks. The fifteen-month program is organized into two training phases: the module phase and the community phase.

Module Phase

In the prototype program, the module phase of training is scheduled to last eleven months, or forty-seven weeks. The first thirty-one weeks are classroom and skill development activities. The last sixteen weeks are clinical rotations.

a. Classroom and skill development

During the first thirty-one weeks, the instructors present the content of the basic clinical knowledge and skills, general clinical, and maternal and child health modules. They also introduce one of the community health modules and one of the health center management modules. The instructors then initiate skill development opportunities for the students.

The following table illustrates how classroom activities and skill development activities are integrated during the first thirty-one weeks of the module phase of training. Note the departure from more conventional training schedules. Exposure to the community and to health center management issues is first. This helps to balance the student's perception of his job requirements and helps to avoid an early bias towards the importance of curative care.

FIRST THIRTY-ONE WEEKS OF THE MODULE PHASE OF TRAINING

Identifying the Preventive Health Needs of the Community module, Part 1

Skill development, 18 days

Identifying the Preventive Health Needs of the Community module, Part 2
Working with the Health Team module, Part 1
Anatomy and Physiology module
Medical History module
Physical Examination module

Skill development, 6 days

Respiratory and Heart module
Gastrointestinal module

Genitourinary module

Skill development, 6 days

Infectious Diseases module
Other Common Problems module

Skill development, 6 days

Skin module
Dental, Eyes, Ears, Nose, and Throat module
Trauma and Emergency module
Problems of Women module
Prenatal Care module
Labor and Delivery module
Postnatal Care module
Diseases of Infants and Children module

Skill development, 12 days

Child Spacing module

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b. Clinical rotations

During the next sixteen weeks of the module phase, students continue to develop knowledge and apply new skills during supervised practice experiences called clinical rotations. Clinical rotations take place at nearby health centers, outpatient clinics, and inpatient hospital facilities. Each student is assigned to four different sites for one-month rotations.

Community Phase

The community phase lasts seventeen weeks. It is divided into nine weeks of skill development, two weeks of classroom activities, and six more weeks of skill development. During the community phase the students work in a setting that is similar to their job placement after graduation. In the prototype curriculum, this training phase takes place in a rural health center.

During the community phase, the students apply the skills and knowledge that they have learned during the module phase. They also prepare, select, and train community health workers. About one-third of the student's time during the community phase is devoted to health center management. The management activities continue the skill practice initiated in the classroom and cover all the major topics addressed in the Working with the Health Team module and the Working with Support Systems module. These are spaced out during the community phase so as to interrelate with the community health and community health worker training components.

The following chart shows the characteristics of the two training phases.

CHARACTERISTICS OF THE TRAINING PHASES FOR MID-LEVEL HEALTH WORKERS

	MODULE PHASE		COMMUNITY PHASE		
	CLASSROOM AND SKILL DEVELOPMENT	CLINICAL ROTATIONS	SKILL DEVELOPMENT	CLASSROOM	SKILL DEVELOPMENT
	31 WEEKS	16 WEEKS	9 WEEKS	2 WEEKS	6 WEEKS
STUDENT GOALS	Develop knowledge and skills in: Identifying the preventive health needs of a community Working as a member of a health team Taking medical histories and performing physical examinations Recognizing diseases and abnormal signs Delivering health messages Understanding patient care	Practice integrating knowledge and skills in: Diagnosing diseases Caring for and advising patients Performing specific patient care procedures	For the first four weeks, develop knowledge and skills in: How to meet a community's preventive health needs How to manage a health center How to work as a member of a health team For the next five weeks, practice integrating and applying knowledge and skills in: Helping a community plan activities to meet their preventive health needs Managing a health center Working as a member of a health team Providing general clinical and maternal and child health services Also take part in a community phase orientation program	For the first week: Discuss the skill development activities just completed Make plans for future skill development activities For the second week: Develop knowledge and skills in: Training and supporting community health workers	Practice applying knowledge and skills in: Carrying out and evaluating plans for community health activities Managing a health center Working as a member of a health team Training and supporting community health workers Providing general clinical and maternal and child health services
TRAINING SITES	Classroom Hospital, clinic, or health center Community	Hospital, clinic, or health center	Classroom Health center Community	Classroom	Health center Community
TRAINING RESPONSIBILITIES	Give pretests Teach module content Give students opportunities to practice skills with supervision Evaluate student knowledge with posttests Evaluate student performance with skill checklists	Make periodic visits to clinical rotation sites	For the first four weeks: Teach module content Evaluate student knowledge with posttests Evaluate student performance with skill checklists For the next five weeks: Make periodic visits to community phase sites	Arrange time for students to discuss their skill development activities Meet with individual students to discuss future skill development plans Teach the content of the Training and Supporting Community Health Workers module	Make periodic visits to community phase sites

5.6 ADAPTING THE STUDENT TEXTS AND REFERENCE MANUALS

People with special experience and interest in primary health care services usually adapt the student texts and reference manuals. This group often includes people with different backgrounds and approaches to work. To adapt the materials, you must organize these poeple into compatible work groups. You must orient them to the adaptation procedure and support them as they proceed with the adaptation. You must anticipate the concerns and expectations of the newly formed groups as they begin their task. The adaptation process will proceed more smoothly with your continued assistance.

Introduce the Group

Even if the members all know one another, they will wonder why each group member has been selected. Early introductions are important in building group trust. Introduce yourself and explain how the group has been selected. Ask each participant to introduce himself. For those who are reluctant to describe themselves, you or someone else may offer additional information that shows appreciation of that individual's value to the group. For those whose expertise is well recognized, offer a more personal note about other interests to make the rest of the group feel more comfortable with the person.

Explain Your Goals

People need to understand the purpose of their working together. If group members do not develop an early feeling of purpose, they will become bored and restless. In the beginning, explain and discuss the goals of curriculum adaptation. As you complete each step in the adaptation process, recognize the progress of the participants toward their goals.

Outline the Adaptation Plan

Be clear about how you expect the work to proceed. Encourage the group to give regular feedback about the effectiveness of their activities. If you know how you want the group to complete a certain task, give clear instructions. If you do not know how best to proceed, be honest. Ask for advice. Choose the best suggestions. Or, let the group take responsibility for deciding how they wish to proceed.

Outline the Adaptation Schedule

You should have completed a tentative adaptation schedule to present to

the group. This schedule should include projected dates for completing the adaptation of each module by unit, and of the corresponding information in the appropriate reference manuals. Group members who accept responsibility for adapting the modules and reference manuals should review your schedule for their material. They will need to either agree to your suggested completion dates or negotiate a revised schedule. Groups are more likely to meet scheduled deadlines if they have participated in setting the deadlines. Your responsibility will be to monitor the groups' progress and help them as necessary so they stay on schedule.

Complete the Adaptation

Depending on which adaptation approach you select, the adaptation team may meet and work jointly to complete the adaptation. Frequently, the group will assign specific modules to individual members and plan to meet, discuss, and approve the adaptations later. Regardless of the method used to organize the work, all the team members should follow an orderly and systematic adaptation procedure, reviewing one module at a time.

a. Review the adapted task analysis table.

b. Adapt the learning objectives to reflect the adapted task analysis table. Section 5.7 gives more information on preparing learning objectives.

c. Read the prototype student text carefully. Identify sections that are irrelevant as a result of the adaptation of the objectives. Identify additions to the student text as a result of the adaptation of the objectives. Compare the language level of the prototype with the known reading and comprehension skills of the students who will be using the module.

d. Starting at the beginning of the student text, revise each unit.

   Delete irrelevant portions of the text, simplify language as necessary, and write additional material as required.

   Examine the review questions and review exercises. Delete those that are no longer relevant. Develop additional review questions and review exercises to meet the requirements of the adapted task analysis table.

e. Revise the adapted task analysis table to reflect issues that arise during adaptation of the text.

f. Compare the skill checklists with the task analysis table, the objectives, and the narrative. Compare the skill checklists with the Patient Care Procedures reference manual. Identify any discrepancies and recommend modifications as necessary.

SKILL CHECKLIST

Collecting Sputum from a Suspected Tuberculosis Patient

This checklist has two purposes.

1) Students should use it as a guide for checking their own skills or other students' skills.
2) Supervisors should use it when they evaluate how well students collect sputum from suspected tuberculosis patients.

After observing a student, enter a rating in the appropriate column.

Rating: 1 = Inadequate
2 = Needs improvement
3 = Satisfactory
4 = Above average
5 = Excellent

When collecting sputum:	YES	NO	RATING	COMMENTS
1. Tell the patient to rinse his mouth with water and spit the water out.				
2. Tell the patient to cough deeply.				
3. Collect sputum in a clean, wide-mouth container, and cover it.				
4. Label the container and send it to the hospital the same day.				
5. Record collection on tuberculosis register and patient's card.				
6. Record return results on tuberculosis register and patient's card.				
7. Send the patient home with a container to collect a second sample. Give the patient instructions on how to collect his sputum.				

Collecting Sputum from a Suspected Tuberculosis Patient

SUPPLIES

Two clean, wide-mouthed containers with lids

PURPOSE

The purpose of sputum collection is to help in the diagnosis of pulmonary tuberculosis. The sputum must be stained and examined under the microscope for the presence of tuberculosis bacteria.

PROCEDURE

1. Collect supplies.
2. Explain the procedure to the patient. The sputum must come from deep inside the chest and not from the juices in the mouth and throat.
3. Tell the patient to rinse his mouth with water and spit the water out.
4. Tell the patient to cough deeply and bring up material from his lungs.
5. Tell the patient to spit this material into the wide-mouth container.
6. Cover the container tightly with the lid.
7. Label the container and send it to the hospital the same day.
   Label the container with the following information:
   Patient's name and where he lives
   Date and time of day you collected sputum
   Hospital to which the specimen is to be sent
   Health center to which results are to be sent
   Name of the health worker
8. Record the patient's name and address, and the procedure and date on the tuberculosis register and the patient-held card.
9. Record return results on the tuberculosis register and the patient-held card.
10. Give the patient a second container. Tell him to bring you a second specimen that he has collected early in the morning. Tell him to collect it in the same way as the first specimen and to bring the container to you immediately.
11. Label the second container. Record the collection on the patient-held card and in the tuberculosis register.
12. Send the container to the hospital the same day the patient brings it to you.
13. Record return results from the second specimen on the tuberculosis register and the patient-held card.

g. Revise the Formulary, Diagnostic and Patient Care Guides, Health Center Operations manual, and Community Health manual to reflect changes in the general clinical, maternal and child health, health center management, and community health modules.

h. Revise the basic clinical knowledge and skills modules to reflect changes in the general clinical and maternal and child health modules.

The time available to complete the adaptation is limited by the date set for training to begin. The amount of time required to complete the adaptation also depends on the extent of changes required and the expertise of those who adapt the content. To help the adaptation teams plan a realistic schedule for module revision, inform them of the projected training date and the estimated time required to edit, type, and reproduce the modules. See Section 8 for more information about these activities.

5.7 PREPARING LEARNING OBJECTIVES

In a competency-based training program, the skills and knowledge identified through the job analysis become the basis for the students' learning objectives. Learning objectives state what the students should be able to do at the end of a learning period. Writing clear learning objectives is a special skill that requires preparation and practice. Follow the guidelines outlined below for preparing learning objectives.

State an Action that Can Be Measured or Observed

A learning objective refers to an observable or measurable action that the student performs. For example, mid-level health workers need the following skill to carry out their work:

> "Recognize the following skin lesions: macule, papule, pustule, vesicle, burrow, ulcer."

A good learning objective for this would be:

> "Identify the following skin lesions when you see them on a patient or in a photograph: macule, papule, pustule, vesicle, burrow, ulcer."

Some actions are too ambiguous for the instructor to observe and for the student to know what is required. Use specific action words to make learning objectives clear. See the following table.

Ambiguous	Specific
Understand	List
Appreciate	Identify
Know	Demonstrate
Be familiar with	Compare
Comprehend	Choose
Recognize	Describe

You cannot see understanding, but you can tell if a person understands if he accurately describes relationships or causes. You cannot know whether recognition takes place unless the student names or identifies what he has recognized.

Describe the Criteria for Acceptable Performance

Learning objectives state criteria for satisfactory performance. You could infer a student's skill in recognizing skin lesions by asking him to describe each lesion on a written test. Here, however, the student is asked to understand and apply his knowledge by identifying the actual lesions. Stating criteria for acceptable performance tells the student how well and at what level you want him to perform. The criteria for student evaluation are built-in. These include:

A minimum number of correct responses, such as "describe four of the five causes of . . ."

A percentage of correct responses, such as "score at least 80% on a test of your knowledge about . . ."

An established rating level for acceptable performance, such as "achieve a Satisfactory rating . . ."

Within an established time frame, such as "at the end of two weeks of skill development experience . . ."

If a standard has been defined in some other text, state in the objective where to find the standard. For example:

"According to the Diagnostic and Patient Care Guides. . ."

"Following the procedure for examining a child . . ."

Tell the Students under What Conditions They Must Be Able to Perform

Telling students where and how to perform an activity helps them understand what you expect of them. Examples of conditions relating to performance include:

"Using household utensils . . ."

"In an environment similar to a health center . . ."

"In a community without a midwife . . ."

"Using the Operations manual . . ."

"Using the Diagnostic and Patient Care Guides. . ."

Because conditions for testing will vary from program to program, learning objectives in the prototype curriculum usually do not define the conditions under which learning objectives will be measured.

ACTIVITY 13

Explaining the Content and Format of the Training Curriculum to the Adaptation Team

The members of the adaptation team must have a working knowledge of the training curriculum before they can take part in the adaptation activities. The information in Section 5 provides a detailed account of the content and format of the training curriculum for mid-level and community health workers. Share this information with members of the adaptation team to prepare them for the adaptation process. Make a presentation to the members of the adaptation team that explains:

The content of the mid-level health worker and community health worker training curriculum

The format and purpose of the modules and reference manuals

The rationale for the sequence and duration of the training phases

Use the guidelines for preparing a presentation in Unit 1 to develop the presentation. Remember to follow these steps:

1. Prepare objectives to guide the presentation.
2. Involve the audience in the presentation.
3. Help the audience reach your objectives.

   Tell them what you are going to say.
   Say it.
   Tell them what you said.
4. Find out what the audience knows and thinks at the conclusion of the presentation.
5. Enhance the presentation with visual aids.

ACTIVITY 14

Preparing Learning Objectives

You will prepare the adaptation team to write learning objectives. Learning objectives guide the students as they take part in the training program. Follow these steps.

1. Divide the adaptation team into small working groups. Ask each group to agree on a learning objective related to each of these tasks:

   Recognize the symptoms and signs of dehydration in infants, including dry and tenting skin, sunken eyes, sunken fontanelle, and deep and rapid respiration

   Understand the anatomy of the eye

   Survey a community to identify major health needs

   Give the groups forty-five minutes to prepare their objectives.

2. Ask a representative from each group to report on their work to the full group. Ask the representatives to identify a learning objective for the first task. If there is general agreement among the groups, go on to the next task. If there is some disagreement, let the group members offer suggestions on which alternative is best. Or, summarize the differences without necessarily selecting a "best" objective.

   The second task should raise questions about what level of detail is required in describing the anatomy of the eye. Point out that the level of detail depends on the types of problems a mid-level health worker will be required to treat. Point out that although anatomy may be one of the first things taught, the content of the materials on anatomy is one of the last things decided. It should reflect the problems that have been selected for the mid-level health worker to treat.

   Surveying a community involves a great deal of knowledge and skill. The groups will not be successful in writing a single learning objective for this task. However, the experience will facilitate understanding of the distinctions between duties and knowledge and skill competencies.

ACTIVITY 15

Adapting the Student Texts and Reference Manuals

You will help the adaptation team review and adapt sample sections of the student texts and reference manuals in preparation for independent work. Follow these steps.

1. Gather these materials:

   Adapted task analysis tables for mid-level health workers

   Adapted lists of health problems that mid-level health workers will identify and treat or refer

   Adapted lists of patient care procedures that mid-level health workers will perform

   Adapted lists of supplies and equipment that mid-level health workers will need to carry out patient care and other procedures

   Adapted lists of drugs and medications that mid-level health workers will need to provide patient care

   Prototype student texts

   Prototype reference manuals

2. Help the team members adapt the student text and associated reference manuals for at least one module. Be sure the team adapts every aspect of the student text including student guides, narrative, review questions, review exercises, and skill checklists. Make sure the team revises the appropriate reference manuals to reflect changes in the student texts. Discuss and resolve any problems that arise. It is not necessary to adapt the instructor's manuals at this time.

3. Assign people to the five groups you outlined in Activity 6 according to technical interest:

   Health center management
   Community health and community health worker training
   General clinical care
   Maternal and child health
   Basic clinical knowledge and skills

   Have each group review one or more of the modules that are included in its assigned subject area.

4. Have each group read, discuss, and adapt their selected module. Review and adapt the modules in this order:

   Task analysis table
   Student guide for each unit
   Narrative for each unit
   Review questions and review exercises for each unit
   Schedule
   Table of contents
   Reference manuals

   Group 1 will adapt the health center management materials for mid-level health workers. This group will have to work closely with the other groups during discussions of drugs and medications, medical supplies and equipment, and health center forms. Group 3 will adapt the general clinical materials, and Group 4 will adapt the maternal and child health materials. Group 5 will adapt the basic clinical knowledge and skills modules. The content of the basic clinical knowledge and skills modules will reflect the adaptations of the general clinical and maternal and child health modules. In other words, changes made by Groups 3 and 4 will dictate the required basic clinical knowledge and skills. This means that Group 5 will have to work closely with Groups 3 and 4. Also keep in mind that both Groups 3 and 4 will be adapting the Formulary, Diagnostic and Patient Care Guides, and Patient Care Procedures reference manuals. You and your staff will have to closely monitor and coordinate the revision of the reference manuals by these two groups.

5. After each group has revised a student text, develop a plan for adapting the rest of the modules. Ask each group to meet, select a spokesperson, and draft a plan that assigns responsibility for revising the remaining modules in their subject area. The proposed plan should include individual assignments, group meeting dates, and target dates for completing the adaptation.
6. Meet with the leaders from each group to review and approve the plans.

SECTION 6

Scheduling the Training Activities

PROGRAM MANAGER'S GUIDE

OBJECTIVE

After completing the activities in this section, you should be able to prepare a schedule of the training activities that includes the estimated duration and suggested sequence of learning activities in the module and community phases of training.

To achieve this objective, you must know:

1. The teaching schedule for the modules and the factors that influence the training sequence
2. The rationale for the training sequence

ACTIVITIES

1. Review Section 6.
2. Review Section 4, Activity 12. Summarize tasks from the adapted task analysis tables.
3. Review Section 5, Activity 15. List the adapted modules.
4. Review Section 1, Activity 1. Prepare a presentation about how to plan for scheduling the training activities.
5. Develop a schedule for training and evaluation activities.

RATIONALE

The adaptation team has now completed the adaptation of the student texts and reference manuals. The next step is for the instructors to adapt the instructor's manuals and evaluation tools. Before they can do that, however, you and your staff must schedule the training activities. Scheduling the training activities means ordering the activities, deciding how much time you will allot for each, deciding who will be responsible for carrying them out, and planning where they will be carried out. Scheduling helps you determine how all the parts of the training program will fit together and which activities will be dependent upon others. With this information, the instructors can prepare the learning activities and evaluation scheme.

You use your list of adapted modules to begin the scheduling process. Then you follow these eight steps:

Plan the training sequence
Decide the length of the training sequence

Decide when training can start
Develop an evaluation scheme
Decide how much time to allot for each activity
Plan the training sites
Assign training responsibilities
Prepare the final schedule

PROGRAM MANAGER'S NOTE

THE SCHEDULE WILL BE THE FRAMEWORK THAT YOU AND YOUR STAFF WILL USE TO COORDINATE ALL OF THE TRAINING ACTIVITIES.

6.1 PLANNING THE TRAINING SEQUENCE

The list of adapted modules outlines the subjects that you will teach in the mid-level health worker training program. You must then decide in what sequence the instructors will teach the subjects. Consider these factors when you decide on the training sequence.

Which Modules Introduce the Principles of Primary Health Care?

The Identifying the Preventive Health Needs of the Community module introduces the student to his primary health care role in the community. The student learns to help communities identify their health needs and make decisions about activities that can meet these needs. The knowledge and skills in this module affect the learning of all the other modules in the series. You should schedule this module to be taught first. The Working with the Health Team module describes how primary health care services are provided by the ministry of health and explains the role of the mid-level health worker and other members of the health team in providing these services. You should schedule this module to be taught after the Identifying the Preventive Health Needs of the Community module.

Which Modules Are Prerequisites for Understanding Other Modules?

The prototype training sequence assumes that three modules teach basic clinical knowledge and skills that the students need before they can study any of the other modules in the series. These modules are Anatomy and Physiology, Medical History, and Physical Examination.

The Anatomy and Physiology module introduces the students to the structure and functions of the human body. You should schedule this module to be taught before any of the general clinical modules. The Medical History and Physical Examination modules are designed to be taught after the Anatomy and Physiology module. The students must learn how to take a medical history and perform a physical examination before they can study any of the general clinical modules.

Which Modules Reinforce Knowledge and Skills Taught in Other Modules?

Certain modules reinforce the learning of previous modules. For example, scheduling the Respiratory and Heart, Gastrointestinal, and Genitourinary modules after the Medical History and Physical Examination modules allows the students to practice their new medical history and physical examination skills right away while learning about the most commonly occurring health problems.

Which Modules Depend on Advanced Skills?

Certain modules teach highly specialized skills and require the students to be at an advanced learning level. For example, the Trauma and Emergency module assumes that the students have experience taking medical histories, performing physical examinations, and caring for common clinical problems. You should schedule Trauma and Emergency after the students have studied all of the general clinical modules.

Which Modules Should Be Taught as Part of a Group?

You should teach certain modules as a group because their content is similar, they reinforce each other, and they provide an effective step-by-step learning sequence for the students. The maternal and child health modules are such a group. In the prototype training curriculum, the maternal and child health modules are scheduled to be taught in this sequence:

Problems of Women
Prenatal Care
Labor and Delivery
Postnatal Care
Diseases of Infants and Children
Child Spacing

The students learn how to do a normal female genital examination in the Problems of Women module. The normal examination becomes the basis for learning how to examine a woman when she is pregnant, desires a

method of child spacing, or has a reproductive system problem. The Prenatal Care, Labor and Delivery, and Postnatal Care modules teach the students about caring for a woman before, during, and after delivery. In the Postnatal Care module, the students also learn how to examine a newborn and care for the common problems of newborns. These learning activities are prerequisites for the activities that take place in the Diseases of Infants and Children module.

Which Modules Depend on Information Gathered in Another Module?

The learning activities in some modules depend on information gathered during the learning activities in a previous module. For example, the learning activities in the Meeting the Preventive Health Needs of the Community module depend on information gathered about the community during the study of the Identifying the Preventive Health Needs of the Community module. This same information influences the choice of materials for training community health workers from the community.

Which Modules Introduce or Support an Extensive Learning Activity?

Some modules help prepare the students for another phase of their training. For example, the Meeting the Preventive Health Needs of the Community, Working with the Health Team, Working with Support Systems, and Training and Supporting Community Health Workers modules help the students prepare for the community phase activities. Schedule these modules to be taught before the community phase learning activities.

What Other Factors Influence the Training Sequence?

You also need to look at other factors that may influence the training sequence. For example, the facilities that you want to use to reinforce certain skills may be available to the students only during a specific time of the year. Or, an individual that you want to be involved in teaching a module may be available only at a certain time. You will have to make allowances for these factors in your schedule. Also, certain health problems, such as diarrhea, occur with greater frequency at certain times of the year. The care of infants and children with diarrhea is an important part of the Diseases of Infants and Children module. Therefore, the best time to teach that module would be during the season when diarrhea is most common. You also have to consider the seasons when you schedule the Identifying the Preventive Health Needs of the Community module. If

you plan to have the students work in a farming community, do not schedule the module to be taught during planting or harvesting time when the community members would be working in their fields.

After taking into consideration the factors that can influence the schedule, prepare a preliminary training sequence. For example:

Identifying the Preventive Health Needs of the Community
Working with the Health Team
Anatomy and Physiology
Medical History
Physical Examination
Respiratory and Heart
Gastrointestinal
Genitourinary
Infectious Diseases
Other Common Problems
Skin
Dental, Eyes, Ears, Nose, and Throat
Trauma and Emergency
Problems of Women
Prenatal Care
Labor and Delivery
Postnatal Care
Diseases of Infants and Children
Child Spacing
Meeting the Preventive Health Needs of the Community
Working with the Health Team review
Working with Support Systems
Training and Supporting Community Health Workers

6.2 DECIDING THE LENGTH OF THE TRAINING SEQUENCE

Deciding the length of the training sequence depends on your expectations about the students' performance based on the job analysis. When you develop the task analysis tables, you describe the basic knowledge and skills that you plan to teach. You then use the task analysis tables to review and adapt the modules. The prototype modules developed from the original task analysis tables describe activities that would take at least fifteen months to complete. During your adaptation of the student texts, you may have deleted or added tasks and changed the texts accordingly. Then you must adjust the schedule for completing the training sequence. This often must be done within time limits set at the policy level.

6.3 DECIDING WHEN TRAINING CAN START

The starting date of the training program depends on many factors, such as the selection of students, the preparation of facilities, and the preparation of the training materials. The starting date is not dependent, however, on the production of the full set of adapted modules. Training can begin when the first six modules to be taught are adapted, edited, translated, and reproduced.

6.4 DEVELOPING AN EVALUATION SCHEME

The objective of a competency-based training program is to help the students learn a specific job. Therefore, you must periodically assess whether the students are in fact learning the parts of the job that they need to. You evaluate knowledge and skills at different times in the training sequence based on the availability of appropriate practice opportunities. You evaluate learning at three levels.

Evaluation Level I

Level I is the first part of the module phase of training. At this level, the students learn basic knowledge and skills. Knowledge acquisition occurs in the classroom. Skill development may also occur in the classroom. Most often, however, students develop and practice basic skills in health centers, hospitals, or communities. Through the modules the students learn how to use communication and interviewing skills in clinical and community settings. They learn how to recognize symptoms and signs of health problems and how to present health messages about preventing and caring for the problems. They learn how to identify health needs in communities. They also learn how to work as part of a health team.

Posttests evaluate the students' knowledge at this level. After a student completes his classroom and clinical experience for a particular module, he is given a posttest that covers the material in the module. The student is expected to pass the posttest with a score of 80% or higher. If he does not, he is given an opportunity to study the module further and repeat the test.

The student is also required to learn a prescribed set of skills for each module. For example, in the Gastrointestinal module for Evaluation Level I the student is evaluated on his skill in:

Recognizing the abnormal signs of gastrointestinal problems

Interviewing patients about their gastrointestinal problems

Examining people with complaints of gastrointestinal problems

Providing patients with advice about the prevention and home care of gastrointestinal problems

Presenting health messages about prevention of gastrointestinal problems

Evaluation Level II

Level II is the second part of the module phase of training. At this level, the students integrate their basic knowledge and skills and begin to develop competence through practice in a supervised setting. For the general clinical modules and the maternal and child health modules, this practice takes place during hospital or health center rotations. For the community health modules, this practice takes place in a community.

Level II is a time for students to begin performing their job tasks and duties under supervision. For example, in the Gastrointestinal module, the student is evaluated on his skill in:

Correctly diagnosing, treating, and advising two patients for each of the gastrointestinal problems described in the module

Earning at least two Satisfactory ratings on passing a nasogastric tube

Evaluation Level III

At this level, the student applies all knowledge and skills that he learned during Evaluation Levels I and II. He practices his skills in a setting that resembles the setting in which he will eventually work. The student is evaluated on how well he is able to use the knowledge and skills he has learned in any situation that presents itself at the health center. For example, in the Gastrointestinal module, the student is evaluated on his ability to:

Diagnose and treat patients with gastrointestinal problems

Provide patients and their families with advice about home care and ways to prevent the spread of gastrointestinal problems

Conduct community meetings to discuss the prevention and care of gastrointestinal problems

Train a community health worker to assist with the community health program

For the general clinical modules and the maternal and child health modules, Level III corresponds to the clinical and maternal and child health rotations. That is, all of the Level III performance requirements for these modules are scheduled to be completed during these rotations. For the community health and health center management modules, however, this level corresponds to the four-month community phase of training.

You need to plan and schedule evaluation activities to ensure that evaluation is a continuous process and is integrated into the training sequence at the appropriate times. You also need to designate the type of evaluation tools that you will use during the different phases of training. The following table gives an overview of the key evaluation issues you need to consider in scheduling evaluation activities, using the basic clinical knowledge and skills and general clinical modules as examples. These and other key evaluation issues are discussed in more detail in Section 7 and in the Training Evaluation Manual.

TRAINING EVALUATION SCHEDULE 2

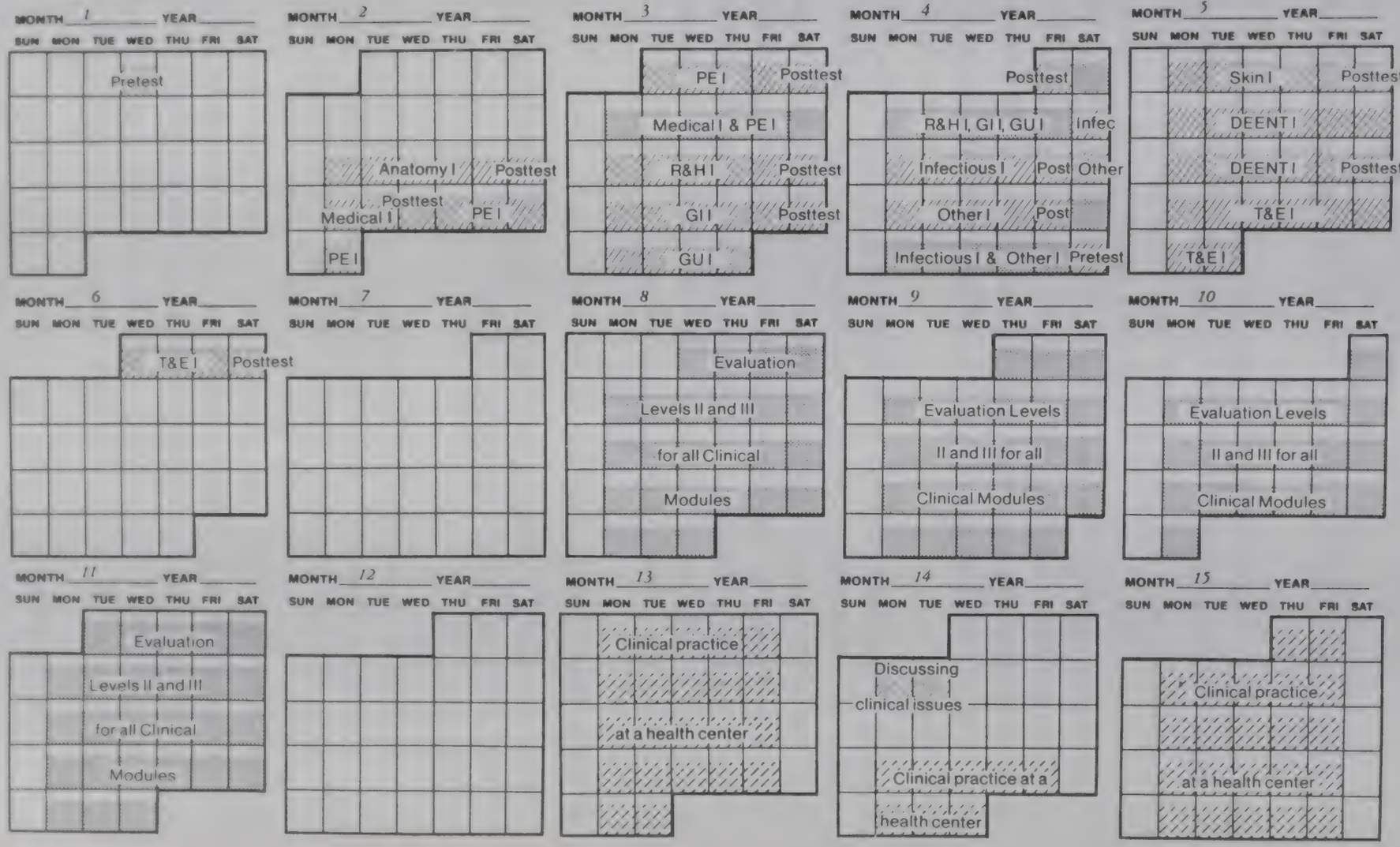
Clinical Modules

BASIC CLINICAL KNOWLEDGE AND SKILLS

Anatomy and Physiology (Anatomy)
Medical History (Medical)
Physical Examination (PE)

GENERAL CLINICAL

Respiratory and Heart (R&H)
Gastrointestinal (GI)
Genitourinary (GU)
Skin
Dental, Eyes, Ears, Nose, and Throat (DEENT)
Infectious Diseases (Infectious)
Other Common Problems (Other)
Trauma and Emergency (T&E)



Evaluation Level I (I)
Level II (II)
Level III (III)

Key to Shadings

- Classroom time
- Clinic, hospital ward, or health center practice
- Community and health center experience

6.5 DECIDING HOW MUCH TIME TO ALLOT FOR EACH ACTIVITY

You also need to schedule time for general types of learning activities. For example, you must decide on a block of time for skill development. At this stage, you will not be developing daily teaching plans. The instructors who adapt the instructor's manuals will do that. However, your decisions about blocks of time will help the instructors adapt the teaching plans. For example, suppose you decide that the Problems of Women module will be taught in six days. Then the people working on the Instructor's Manual for Problems of Women will structure their learning activities to take place in the six days allowed.

To make these decisions, you need to be familiar with the content of all the modules. Then you can accurately estimate the time needed to teach the module or carry out the learning activities. The adapted learning activities in the student guides will give you an idea about what the students are expected to do and will help you to estimate the time needed to complete the activities. The prototype schedule takes into account the time needed for carrying out the following types of activities.

Module Phase Activities

Module phase activities include module time, skill development, clinical rotations, special activities, and evaluation.

a. Module time

Module time includes the classroom, clinical, and community time that you allot as a block to conduct the learning activities for each module. In the prototype schedule, module time ranges from five to twelve days.

b. Skill development

During skill development, students practice newly learned skills in a supervised setting. Supervisors evaluate student performance in an actual clinical or community setting. Skill development follows a block of module time and usually lasts from six to twenty-four days.

c. Clinical rotations

Clinical rotations allow students to work in a variety of clinical settings in an uninterrupted sequence. Clinical rotations occur as the last activity of the module phase and last for ninety-six days.

d. Special activities

You may want to plan time for special activities or breaks between activities. Special activities include orientation of new students at the beginning of the training program or time set aside to do pretests. The prototype schedule provides two days for student orientation and two days for pretests.

e. Evaluation

You need to provide time throughout the module phase for continuous evaluation activities.

Community Phase Activities

Community phase activities include module time, the community phase orientation program, integrated health center activities, special activities, and predeployment activities.

a. Module time

The three modules taught during the community phase help prepare the students for their integrated health center activities. These modules are: Meeting the Preventive Health Needs of the Community, Working with the Health Team, and Working with Support Systems. The time allowed for these three modules ranges from six to fourteen days.

b. Community phase orientation program

The community phase orientation program prepares the health center supervisors and the students for their roles during the integrated health center activities. The community phase orientation program takes place for four days before the integrated health center activities. See Appendix C.

c. Integrated health center activities

During the integrated health center activities, students are assigned to one rural health center for fifty-two days. They practice providing clinical and maternal and child health services, managing a health center, and working with communities to carry out community health activities. The students practice the skills that they learned during the module phase in a realistic, supervised setting.

d. Special activities

After the students have been in their health centers for one month, they return to the classroom for ten days. The students discuss their

experiences in the health center. The instructors reinforce good practices and help the students plan for any necessary changes. The students also learn how to train and support community health workers. The students then return to their health centers to complete their integrated health center activities.

e. Predeployment activities

Five days following the end of the training program are set aside for last minute activities. These activities include preparation for graduation, discussions about deployment, and scheduling of continuing education activities. Continuing education activities are described in the Supervising and Supporting Mid-Level Health Workers module and in the Continuing Education Manual.

The following is an example of a suggested preliminary schedule that estimates the time provided for each activity.

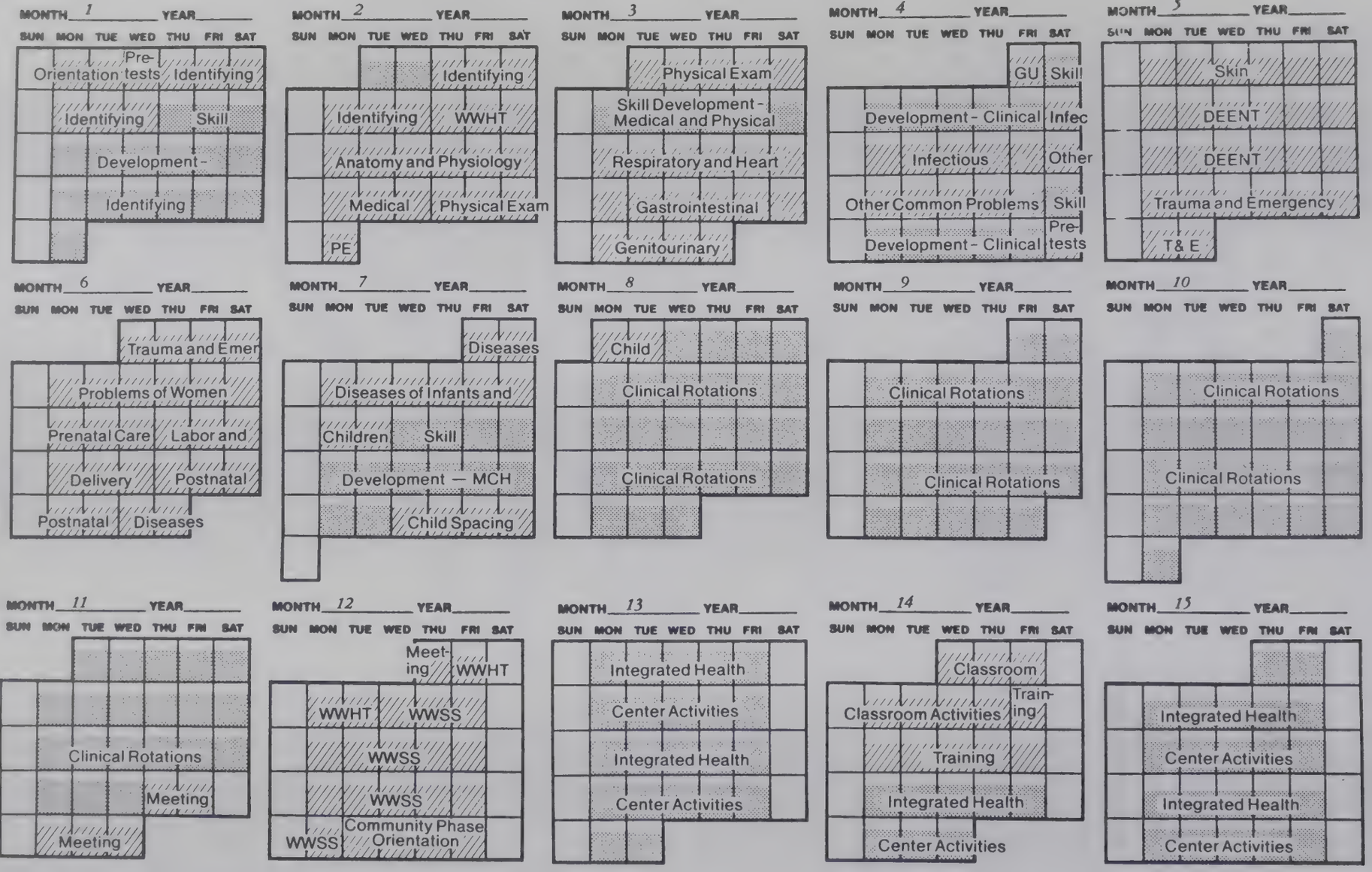
ACTIVITY	SUGGESTED TIME
MODULE PHASE	
Orientation to the module phase	2 days
Pretests	1 day
Identifying the Preventive Health Needs of the Community module	6 days
Skill development	18 days
Identifying the Preventive Health Needs of the Community module	6 days
Working with the Health Team module	3 days
Anatomy and Physiology module	6 days
Medical History and Physical Examination modules	12 days
Skill development	6 days
Respiratory and Heart module	6 days
Gastrointestinal module	6 days
Genitourinary module	5 days
Skill development	6 days
Infectious Diseases module	6 days
Other Common Problems module	6 days
Skill development	6 days
Pretests	1 day
Skin module	6 days
Dental, Eyes, Ears, Nose, and Throat module	12 days
Trauma and Emergency module	12 days
Problems of Women module	6 days
Prenatal Care module	3 days
Labor and Delivery module	6 days
Postnatal Care module	5 days
Diseases of Infants and Children module	12 days
Skill development	12 days
Child Spacing module	6 days
Clinical rotations	96 days

COMMUNITY PHASE

Meeting the Preventive Health Needs of the Community module	6 days
Working with the Health Team module	3 days
Working with Support Systems module	14 days
Community phase orientation program	4 days
Integrated health center activities	22 days
Classroom activities:	7 days
Preparation by students and supervisors	
General discussion about activities to date	
Training and Supporting Community Health Workers module	6 days
Integrated health center activities	30 days
Graduation	
Predeployment activities	5 days

Note that activities during the module phase are scheduled for a six-day week. Activities during the community phase are scheduled for a five-day week.

Fifteen-Month Training Schedule



Identifying the Preventive Health Needs of the Community (Identifying)
Meeting the Preventive Health Needs of the Community (Meeting)
Training and Supporting Community Health Workers (Training)
Anatomy and Physiology
Medical History (Medical)
Physical Examination (PE)
Respiratory and Heart
Genitourinary (GU)
Skin
Dental, Eyes, Ears, Nose, and Throat (DEENT)
Infectious Diseases (Infectious)
Other Common Problems (Other)
Trauma and Emergency (T& E)
Labor and Delivery
Postnatal Care (Postnatal)
Diseases of Infants and Children (Diseases)
Problems of Women
Child Spacing
Working with the Health Team (WWHT)
Working with Support Systems (WWSS)

6.6 PLANNING THE TRAINING SITES

The characteristics of the training sites depend on the objectives of your program and the learning activities you design to help the students meet the objectives. The training sites should fit your basic training sequence and should reinforce the students' learning. They should also allow you to adequately evaluate student performance.

Training Sites for the Module Phase

The module phase is designed to allow the students to become proficient in the knowledge and skills presented in the modules. The learning activities associated with the modules take place in the classroom and in clinics, hospitals, and communities.

a. Classroom experience

In the classroom, the students meet as a group to discuss the content of the modules, take part in classroom learning activities, and share experiences. As a group, they receive the same basic knowledge needed to understand the skills that they will learn.

You need to plan classroom time that balances lectures with demonstrations, discussions, and skill practice. If class time is not carefully planned, most instructors will only lecture. Lecturing is not adequate as the only means of facilitating learning. To make skill acquisition as relevant as possible, the students need to be given a chance to practice new skills and become comfortable with them while in the classroom. The students can practice on each other. They can informally evaluate each other and give feedback on each other's performance. Classroom practice allows you to introduce the students to the evaluation methods that you will use. It also helps to reinforce the final performance expectations.

b. Clinical experience

The classroom experience is the starting point for learning new skills. Classroom practice helps the students become comfortable using the skills. The next step is to allow the students to practice the skills in a clinical setting. Schedule clinical experience as soon as possible after the students learn a new skill in the classroom. Integrating clinical experience with classroom activities reinforces the learning of new

skills. Early clinical experience also helps the students find out if they have in fact mastered new skills.

The ideal clinical facility has the following characteristics:

The student can practice the skills that he learned in the classroom

The setting will not cause any undue stress to the student as he practices

The student will be adequately supervised throughout the time that he is at the facility

All the equipment that the student has been trained to use is available for his use while at the facility

To plan the students' clinical experience, consider what phase of learning the students are in. At the beginning, the clinical setting should give the student a chance to master new skills. Then he needs to practice using the skills to help him make decisions. Once the student can perform the skills well and knows how he is going to use the skills, he needs to practice the skills in a setting that requires a variety of skills.

Clinical facilities include hospital wards, outpatient departments, and health centers. Hospital wards are good places for students to learn new skills. The patients are not hurrying home. The students can practice the skills in a private area and can take as much time as they need. You can select patients in hospitals for the practice of particular skills.

The student can improve his diagnostic skills in an outpatient setting. Use of speciality clinics allows the students to also practice certain specific skills.

c. Community experience

An important part of the mid-level health worker's job is helping to carry out community health activities. Consequently, students need to be involved with community activities throughout their training. The prototype training curriculum was designed to have the students first become comfortable using community involvement skills in the classroom. They practice the skills with fellow students and receive feedback about how well they are performing the skill. After classroom practice, the students go out into a variety of community situations to practice the skills that they learned. The community experience should allow the students to:

Use skills that were learned in the classroom

Practice talking with people on a one-to-one basis, in small and large groups, and in a variety of situations so that the students can become comfortable learning about people and their needs

Practice finding out information about people and communities and giving information to people and communities

Help people in communities choose, plan, carry out, and evaluate priority health activities

Work with other health professionals on behalf of patients and communities

The community locations discussed in the modules include outpatient departments and city and rural settings.

Training Sites for the Community Phase

During the community phase the students apply the knowledge and skills that they learned during the module phase. They practice in health centers that are like the health centers they will work in after graduation. The health center chosen should be a facility that can help prepare the student to manage his own health center and carry out all the functions of a mid-level health worker. The facility should:

Enable the student to practice all the skills that he has learned during the module phase

Be similar to the facility that the student will work in after graduation

Be close enough to the supervisor so that the student can be supervised frequently

Have the cooperation of the already existing staff to take part in the learning and teaching process needed for the community phase

The following table lists in more detail the characteristics of appropriate community phase training sites.

CHARACTERISTICS OF COMMUNITY PHASE TRAINING SITES

	TRAINING SITE CHARACTERISTICS	COMMENTS
Community environment around the facility	Rural community with: Women's groups Schools Midwives, traditional birth attendants, or other traditional practitioners	Since the students will be deployed to rural facilities after graduation, their community phase practice should also be in a rural area. As the students are expected to work with organized community groups, community groups should also be available for practice activities

	TRAINING SITE CHARACTERISTICS	COMMENTS
Facilities and equipment	Health center with: 2 to 3 rooms 2 to 3 overnight beds Refrigerator Safe water supply Latrine	
Drugs and supplies	Access to all drugs and equipment that the students used during training	The students have been trained to use specific drugs and supplies. These supplies must be available to reinforce training.
Personnel	1 nurse assistant 1 midwife 1 cleaner 1 guard	The facility chosen should be fully staffed with workers who will be responsible for the daily operation of the facility. Otherwise the students may not be able to meet their educational needs because they are busy with the immediate needs of the facility.
Work schedule	Health center—three days a week Community—two days a week	The student should have specific days that he is expected to be in the facility doing either clinical or management tasks. He should also have specific time allotted for community work.
Patient load	Sufficiently large and diverse patient load	There should be enough patients coming to the facility to give the student adequate practice in diagnosis and patient care. But the patient load should not be so overwhelming as to make it impossible for the student to accomplish other tasks.
Services provided	The services offered at the facility should include at least: Prenatal and postnatal care Delivery Child care and immunizations Child spacing General clinical services	The student needs practice in all of these areas.
Supervision	The student should be supervised by at least one physician and one training staff member. The student should be supervised at least two times each week. The supervisor should be no further than two hours travel time from the training site.	The mid-level health worker is still a student. The successful transition from student to competent mid-level health worker may depend on how well he is supervised during the community phase.

	TRAINING SITE CHARACTERISTICS	COMMENTS
Referral and transfer time to hospital	Two hours	If the student is too isolated and is further than two hours from the nearest hospital, he might not get the feedback that he needs to know if he is handling cases well and is making the right referral decisions.
Transportation	Transportation to allow the student to get to near-by communities to do community work	The student needs some form of transportation to complete his community activities as required. Otherwise, he will miss an important part of his community phase training.
Collaboration with other workers	Other workers in near-by communities might include: Agriculture extension workers Nutritionists Environmental health workers Child spacing and other maternal and child health workers	An important part of training is learning to collaborate with other workers in the community.
Accommodations and food	The student must have a place to live and be provided with a means to cook food	
Community education materials	The student must have education materials available for work in the community	The training staff needs to ensure that the student is provided with a supply of the materials that he was trained to use.

6.7 ASSIGNING TRAINING RESPONSIBILITIES

You and the other two members of the training staff will carry out most of the training activities. You must assign responsibilities for each portion of the training program. One member of the training staff should be in charge of each activity listed on the training schedule. Put one staff member in charge of similar activities. For example, put one person in charge of coordinating the maternal and child health modules. This person would coordinate classroom activities, prepare learning activities to be used by the instructor, choose guest instructors, schedule clinical experiences, identify and prepare clinical supervisors, and grade pretests and posttests. Or, assign activities at random or according to interest.

You will also need the help of others to carry out the training activities. Other health professionals that you may invite to help with the training activities include:

Instructors assigned to teach an entire module

Guest instructors to teach parts of a module

Supervisors for the clinical experience, skill development, and integrated health center activities portions of the training program

When an outside instructor is scheduled to teach an entire module, it is the responsibility of you and your staff to reconfirm the date and duration of instruction. Meet with the instructor one or two weeks before he is scheduled to teach. Review the appropriate teaching plans in the instructor's manual. Discuss the learning activities and the preparation requirements. Help the instructor prepare the desired learning environment for the students.

You and your staff must also brief the guest instructors on the topics that they are to cover. Make a clear outline of the exact knowledge and skill areas that you would like them to introduce to the students. Suggest learning activities that they might like to use to enhance the students' learning.

Clinical and community supervisors will be the most important people that you will choose to help you in your training effort. You cannot put everything that a student needs to know to do a job in a module or classroom activity. Students need practical experience. When the students are doing clinical and community practice, it is ideal to have a health practitioner in attendance throughout the time that the students are practicing. There should be at least one supervisor for every three students. Then, the supervisor will have the time to become involved with the students' activities. The supervisor can observe student practices. The supervisor can reinforce the good practices and correct the poor practices before they become too much of a habit to change. This is an opportunity to prepare the supervisors of students to be effective supervisors of graduated mid-level health workers.

The choice of supervisors is important. How the student practices in the future may be affected by the experience he has with his supervisors. In the beginning, they will probably be the students' only role models. The supervisor will also be a trainer, evaluator, and possible confidant. Clinical supervisors are usually physicians. Community supervisors can be anyone with good community skills, such as public health nurses and health inspectors. An ideal supervisor should:

Have the interest, ability, and willingness to teach

Have all competencies that the student needs in the process of learning

Be willing to work with students

Be willing to work with the training staff

Agree to evaluate the students using the evaluation tools provided

Be willing to attend the scheduled planning meetings

Have the time and the willingness to supervise

Choose the instructors, guest instructors, and supervisors early in the training process. The more these people are involved in developing the training program the better they will understand what you are trying to accomplish and the better they will be at training.

6.8 PREPARING THE FINAL SCHEDULE

You can prepare the final schedule after the instructor's manuals have been adapted and any problems with the preliminary schedule have been discussed and resolved. To prepare the final schedule:

Choose the starting date

Block in holidays and known administrative breaks

Fill in the sequence of activities

Rearrange the sequence as necessary

The prototype final schedule assumes that the students will attend class six days a week for six hours a day throughout the module phase and for the first part of the community phase. During the integrated health center activities, it is assumed that each student will work at a health center five days a week for eight hours each day. The prototype schedule begins in January.

Throughout the training, you may find that you have to adjust your final schedule. For example, in the prototype schedule a change was made in the scheduling of the activities for the Working with the Health Team module. Instead of teaching the module in six consecutive days, the activities were split and the module is scheduled to be taught in two three-day parts. The first part is a classroom activity after the students return from their skill development activities for the Identifying the Preventive Health Needs of the Community module in the module phase. The second part occurs after the Meeting the Preventive Health Needs of the Community module in the community phase.

ACTIVITY 16

Scheduling the Training and Evaluation Activities

You will give a presentation to members of the training staff to prepare them for developing a training and evaluation schedule. The purpose of the presentation is to share information about and explain the rationale for planning and scheduling a training program so that the training staff can help to:

Prepare a schedule for the sequence of training
Plan sites for training
Choose instructors for carrying out training activities
Choose clinical and community supervisors

Follow these steps.

1. Review the guidelines for preparing a presentation in Section 1, Activity 1.
2. Review the adapted task analysis tables in Section 4, Activity 12. Summarize the tasks that the mid-level health worker will do.
3. Review the list of adapted modules that you will use in the training program.
4. Prepare the presentation.
   a. Discuss the type of worker that the program will train by summarizing the tasks from the adapted task analysis tables.
   b. Discuss the philosophy of competency-based training. Briefly describe the six basic assumptions by which a competency-based training curriculum is adapted. See Section 2.
   c. Briefly describe the two phases of training and the purpose of each.
   d. Describe the list of modules that will be used in the training program.
   e. Describe the levels of evaluation and how to plan the evaluation process.
   f. Describe how to decide how much time to allow for:

Teaching of modules	Community phase orientation program
Skill development	Integrated health center activities
Clinical rotations	Special activities

   g. Describe the requirements of the training program, including Evaluation Levels I, II, and III.

h. Discuss the sites where training could take place and factors that could influence the choice of sites.

i. Describe some of the factors that might influence the sequence of training activities.

5. Then, help the training staff, complete the Worksheet for Activity 16.

First, decide on a sequence of training.

a. Decide on the total length of the training program.

b. Arrange the list of modules in the sequence that you would like to teach them.

c. Arrange the modules in groups so that the modules that you wish to teach as a group are put together.

d. Decide how much time you will allot for teaching each of the modules.

e. Decide when in the sequence you would like skill development activities and decide how much time you will allot.

f. Decide when in the sequence you would like clinical rotations to occur and decide how much time you will allot.

g. Decide when in the sequence you would like to have a community phase orientation program and how much time you will allot.

h. Decide what special activities are needed and how much time you will need for each. Insert the special activities in the appropriate part of the sequence. For example:

ACTIVITY	AMOUNT OF TIME FOR EACH ACTIVITY
Problems of Women module	6 days
Prenatal Care module	3 days
Labor and Delivery module	6 days
Postnatal Care module	5 days
Diseases of Infants and Children module	12 days
Skill development	12 days

Then, next to each of the activities, list the sites where training takes place. For example:

ACTIVITY	AMOUNT OF TIME FOR EACH ACTIVITY	SITES WHERE ACTIVITY WILL TAKE PLACE
Problems of Women module	6 days	Classroom Reproductive health clinics—national, regional, or district hospital

		Reproductive health wards—national, regional, or district hospital
Prenatal Care module	3 days	Classroom Prenatal clinics—national, regional, or district hospital Maternal and child health clinics
Labor and Delivery module	6 days	Classroom Labor and delivery wards—national, regional, or district hospital Maternal and child health clinics
Diseases of Infants and Children module	12 days	Classroom Pediatric clinics—national, regional, or district hospital

i. Next, make the work assignments.

Choose the training staff member who will be in charge of co-ordinating each of the activities.

List the guest instructors next to the appropriate module.

List the clinical and community supervisors who will supervise the students during clinical experiences, skill development activities, clinical rotations, and the integrated health center activities. For example:

ACTIVITY	AMOUNT OF TIME FOR EACH ACTIVITY	SITES WHERE ACTIVITY WILL TAKE PLACE	STAFF MEMBER IN CHARGE OF ACTIVITY	GUEST INSTRUCTORS	CLINICAL OR COMMUNITY SUPERVISORS
Prenatal Care module	3 days	Classroom Prenatal clinics—national, regional, or district hospital Maternal and child health clinics	Mrs. Sherbu	Dr. Netsar	National hospital— Dr. Netsar Dr. Rostale Regional hospital— Dr. Brand Dr. Chase Maternal and child health clinic— Dr. Nang Dr. Parks

The completed worksheet will guide the instructors when they adapt the instructor's materials and evaluation tools. This process is discussed in Section 7.

WORKSHEET FOR ACTIVITY 16

Scheduling the Training and Evaluation Activities

ACTIVITY	AMOUNT OF TIME FOR EACH ACTIVITY	SITES WHERE ACTIVITY WILL TAKE PLACE	STAFF MEMBER IN CHARGE OF ACTIVITY	GUEST INSTRUCTORS	CLINICAL OR COMMUNITY SUPERVISORS

SECTION 7

Preparing the Instructors and Adapting the Instructional Materials

PROGRAM MANAGER'S GUIDE

OBJECTIVES

After completing the activities in this section, you should be able to:

1. Prepare and present training sessions to demonstrate these teaching methods: active lecture, role-play, case study, demonstration, direct experience
2. Adapt these parts of the curriculum to reflect changes in the content of the student texts and reference manuals: instructor's manuals, evaluation tools, evaluation log books

To achieve these objectives, you must know:

1. The roles and responsibilities of the instructors and supervisors
2. The students' learning objectives and the learning activities that meet the objectives
3. The characteristics of these teaching methods: active lecture, role-play, case study, demonstration, direct experience
4. The rationale and procedures for pretests and posttests of students' knowledge
5. The content and use of the skill checklists
6. The purpose and content of the four log books that monitor students' skill development

ACTIVITIES

1. Discuss the roles and responsibilities of the instructors and supervisors described in Section 7.
2. Conduct a meeting of the instructors and supervisors to prepare role descriptions.
3. Practice using the teaching methods to be used in the curriculum.
4. Adapt the instructor's manuals and evaluation tools.
5. Adapt the evaluation log books.

RATIONALE

Once you have determined in what sequence the training activities will be carried out, where training will take place, and who will be involved in training, you are ready to adapt the instructional materials. With the adaptation of the instructional materials, you will have completed the entire sequence of adaptation activities.

In a competency-based training program, the instructional process is made up of three activities:

Preparing teaching sessions based on learning objectives
Using teaching methods that actively involve the students
Systematically evaluating the students' knowledge and skills

This section describes instructional methods and techniques to help you and the other instructors take part in this process. First, at a workshop, seminar, or series of meetings, you are guided through the process of developing learning activities and evaluation tools and using active approaches to learning. Then, this information is applied to a step-by-step procedure for adapting the instructor's manuals, evaluation tools, and evaluation log books. At the end of these activities, you and the other instructors will be prepared for your teaching responsibilities and the curriculum adaptation will be complete.

PROGRAM MANAGER'S NOTE

INSTRUCTORS WHO ARE TRAINED AS HEALTH TECHNICIANS NEED TO LEARN TEACHING SKILLS.

7.1 RESPONSIBILITIES OF THE INSTRUCTORS AND SUPERVISORS

The instructors and supervisors who carry out the instructional process include:

Program manager
Two or three full-time training staff members
Instructors assigned to teach entire modules
Guest instructors assigned to teach parts of modules
Clinical and community supervisors

Together these full-time and part-time personnel conduct and support all of the learning activities for mid-level health workers during the fifteen-month training program. You and the other instructors and supervisors carry out and monitor both classroom and community activities.

Classroom Activities

Each module clearly defines daily classroom activities. The activities include assessing the knowledge and skills of students before they take part in the learning activities, conducting learning activities, evaluating the performance of the students, and correcting poor performance.

Community Activities

The training staff and other instructors guide the students' community activities during the module phase with help from the health team at the practice site. A senior member of the health team supervises the community phase activities with help from the training staff. The instructors familiarize the health team supervisors with the objectives of the community phase. They also discuss and plan the students' activities. They show the supervisors how to assess student performance and how to report student progress.

A member of the training staff must also coordinate the selection of sites for student practice experiences. Additional responsibilities of the training staff include:

Preparing schedules for the students' practice experiences

Providing students with transportation, housing, or supplemental income

Preparing evaluation tools for the supervisors

Establishing a schedule of visits to community phase practice sites

The teaching responsibilities of the program manager depend on the number and type of staff assigned to the program as well as the strengths and weaknesses of staff members. In some programs, the manager's non-teaching responsibilities consume so much time that regular teaching assignments are not possible. In other programs, the manager is also the main instructor.

7.2 PREPARING THE INSTRUCTORS FOR THEIR TRAINING RESPONSIBILITIES

You will plan and implement a workshop, seminar, or series of meetings to prepare the instructors for their training responsibilities. See Section 3. At this time, the instructors will prepare for adapting the instructional materials that they will use in the training program. The participants will be the training staff, instructors, guest instructors, and supervisors who will be teaching the curriculum. You will:

Introduce the instructors and supervisors to the program

Help them define their roles

Help them choose areas of responsibility for which they are best suited and qualified

In all training efforts, the major role of the instructor is to help the students acquire knowledge and skills by sharing his own knowledge and skills. Therefore, a good instructor must have technical knowledge and skill in his subject area. However, many instructors, although technically skilled, cannot transfer their skills to students. This ability of instructors to share their skills is often limited for one or more of these reasons:

The instructor does not know what knowledge and skills the students need

The instructor is unable to organize the information that the students need

The instructor is unable to present the knowledge and skills in a way that the students can understand

The instructor is unable to identify and help students who are not learning

Further, people who are selected as instructors and supervisors are often unfamiliar with the competency-based training approach. The training methods, materials, and evaluation system differ from those in more conventional training programs. As a result, instructors often need to strengthen old skills and develop new teaching approaches that are appropriate to a competency-based system. This includes learning to:

Prepare learning activities to meet training objectives

Use active approaches to learning

Evaluate student performance

7.3 PREPARING LEARNING ACTIVITIES

In a competency-based training program the students take an active role in directing, pacing, and monitoring their learning. This approach encourages interaction between students and instructors that is important for adult learners. The learning activities in the prototype curriculum are designed to develop and support this participative learning environment and to provide opportunities for practice. Designed in this way, the activities increase motivation, improve knowledge retention, and prepare students for evaluation.

The prototype curriculum applies the following principles of competency-based training in the suggested learning activities.

Students are taught in a step-by-step process, moving from the simple to the complex. For example, students learn how to take a medical history and perform a physical examination. Then they learn to focus the medical history and physical examination and recognize symptoms and signs of health problems. They learn to diagnose and care for health problems during their clinical experiences and to improve those skills during the community phase.

Students are told why they need to know and remember certain facts and skills. For example, community health experiences are introduced early in the module phase so that students will understand the value of prevention and health promotion when they learn about health problems later on.

Students are given ample opportunity to apply knowledge and skills during practice experiences.

Students are periodically evaluated so that they develop the desired skills.

Within reason, students are allowed to learn at their own pace. Some students learn from lectures, some from discussion, and others from self-instructional activities. Many need direct experience to learn. Combining these methods accommodates many different learning styles.

Teaching plans in each instructor's manual guide the instructors. Each teaching plan directs the instructor to use a set of learning activities as they work with students to reach the objectives of the session. For example, the instructor may be guided to "conduct a discussion session" or "organize a role-play." The instructors should be capable of using all the teaching methods and techniques that are called for in the teaching plans. To help develop the instructors' skill in using these methods, each of the methods is described in Section 7.4.

7.4 USING ACTIVE APPROACHES TO LEARNING

The teaching plans in each module guide the instructors to use active, learner-centered approaches to help students develop new skills. Active learning is based on the belief that learning emerges as the result of meaningful experiences. The instructor offers students opportunities to learn from experience. Activities and exercises are the first step in the active learning sequence. Then the students review the activity through reports and discussions. They compare the learning activity with the real work environment and assess the value of the learning experience. The learning sequence is complete when students apply their new behaviors in a setting that is similar to their work setting after graduation.

The following active teaching methods are used often in the prototype curriculum.

Active Lectures

Formal lectures are passive. The students do not respond. An active lecture is informal. The lecturer encourages discussion and uses visual aids. Follow these guidelines to help make a lecture an active learning experience:

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a. Be enthusiastic about the information you are sharing.

b. Know your topic.

c. Speak clearly.

d. Talk loudly enough for the person furthest away to hear.

e. Do not distract the group with nervous habits such as pacing, talking in a monotone, leaning or sitting on a desk, or fumbling with papers or small objects.

f. Move naturally and use gestures to help emphasize important points.

g. Use familiar language.

h. Use humor.

i. Use examples and visual aids to illustrate your points.

j. Direct your comments, questions, and glances to actively involve all members of the group.

Discussion Questions

Be sure to ask questions during lectures. Used well, questions can help to stimulate student interest and motivation. You can use questions to evaluate how much students know and have understood. Questions can help you find out about students' strengths and weaknesses. They can help start discussions and review lessons. Questions often help students to look in new directions for solutions to problems and to seek additional information on their own.

There are three levels of questions. The first concerns only knowledge. You ask the student to remember certain facts. You do not require the student to think, only to remember. Still, knowledge questions are important. They find out whether the student has learned the basic facts that he needs to do his work.

The second level of questions asks students to apply their knowledge to different situations. This type of question helps students remember what they have been taught because they are now asked to use that knowledge. They begin to see why it is necessary to learn certain facts. If a student can see a reason for learning something, he is much more likely to learn it.

Problem-solving questions are the third level of questions. Problem-solving questions require the student to consider alternatives. Problem-solving questions involve much more thought than the other two levels of questions.

The number of questions you ask is not as important as the type and level of questions you ask, how you ask them, and how you deal with the responses of the students. If you build your lessons on the answers you receive, your lessons will be lively and stimulating. The students will be thinking, taking part, and contributing. Learn to ask exploring questions and digging questions.

a. Exploring questions

Exploring questions discover what the student knows or thinks. Exploring questions usually have to do with the knowledge level of questioning, but can often be used at the application and problem-solving levels. At the knowledge level, you are interested only in whether or not the student knows certain facts. You expect the student to answer yes or no, or to explain, identify, or name something. You know the correct answer to the question. An example of this type of question is: "How many times does the heart beat per minute?"

You can also use exploring questions at the higher levels. In this case, you do not always know the correct answer. You are encouraging the student to think for himself. An example of this kind of question is: "What would be the best method of giving continuing education to a health worker?" This question asks the student to state his opinion, defend it, find alternatives, and see new possibilities.

b. Digging questions

When a student does not respond correctly or appropriately to an exploring question, you can tell the student he is wrong and give him the correct answer. Very often, this will make the student feel uncomfortable. He will be unlikely to want to learn more. It is better to use digging questions to find the correct response.

You can ask digging questions in five ways. First, you can give the student hints or clues to the correct answer. This helps the student remember the facts necessary to respond correctly.

Or, you can ask the student to clarify a response or to state an incomplete answer more clearly. Consider these examples:

INSTRUCTOR: Why do babies often develop diarrhea at the time of weaning?

STUDENT: They start taking the same foods as older children and adults.

INSTRUCTOR: Right. But why should this cause diarrhea?

STUDENT: Milk, water, and other foods are not really suitable for them.

INSTRUCTOR: You are partly right, but can you tell me why you think these foods are sometimes not the best things for a baby to have?

STUDENT:	Well, breast milk is clean.
INSTRUCTOR:	Are milk, water, and other foods not clean?
STUDENT:	They often get contaminated.
INSTRUCTOR:	Right. Now you can answer the first question again. Why do babies often develop diarrhea at the time of weaning?
STUDENT:	Breast milk is clean, but other forms of milk, water, and foods are often contaminated. They cause diarrhea in young children.

You can also ask the student to give reasons for his response to an exploring question. This lets you find out if the student really understood his first answer.

When a student has answered one question correctly, you can ask the student to expand on his response to discover how far his understanding goes. Consider these examples:

INSTRUCTOR:	What is the usual cause of jaundice in newborn babies?
STUDENT:	It is a blood problem between the mother and the baby.
INSTRUCTOR:	
INSTRUCTOR:	Correct. Can you tell me anything more about it?
STUDENT:	Sometimes jaundice occurs in normal newborn babies.
INSTRUCTOR:	Right. Would you be able to tell the difference between normal and abnormal jaundice of the newborn?
STUDENT:	No. It is too difficult. The baby should be referred to the hospital.

Finally, you can ask the same question to several students, one after the other. Then you involve the entire class. You give each student an opportunity to take part in the discussion.

Visual Aids

Visual aids encourage the students to take part in lectures and discussions. Visual aids help the students understand and remember the information that you present. Commonly used visual aids include flashcards, flipcharts, models, posters, chalkboard, slides, and filmstrips. Here are guidelines for using a chalkboard and flipcharts.

a. Chalkboard

A chalkboard is one of the most commonly used visual aids. Follow these guidelines for using a chalkboard.

Have the chalkboard ready before the session. If possible, write the information you want to present before you begin your lecture.

Position the chalkboard where everyone can see it.

Use colored chalk if available to emphasize the main points.

Stand to one side of the chalkboard so that all students can see it.

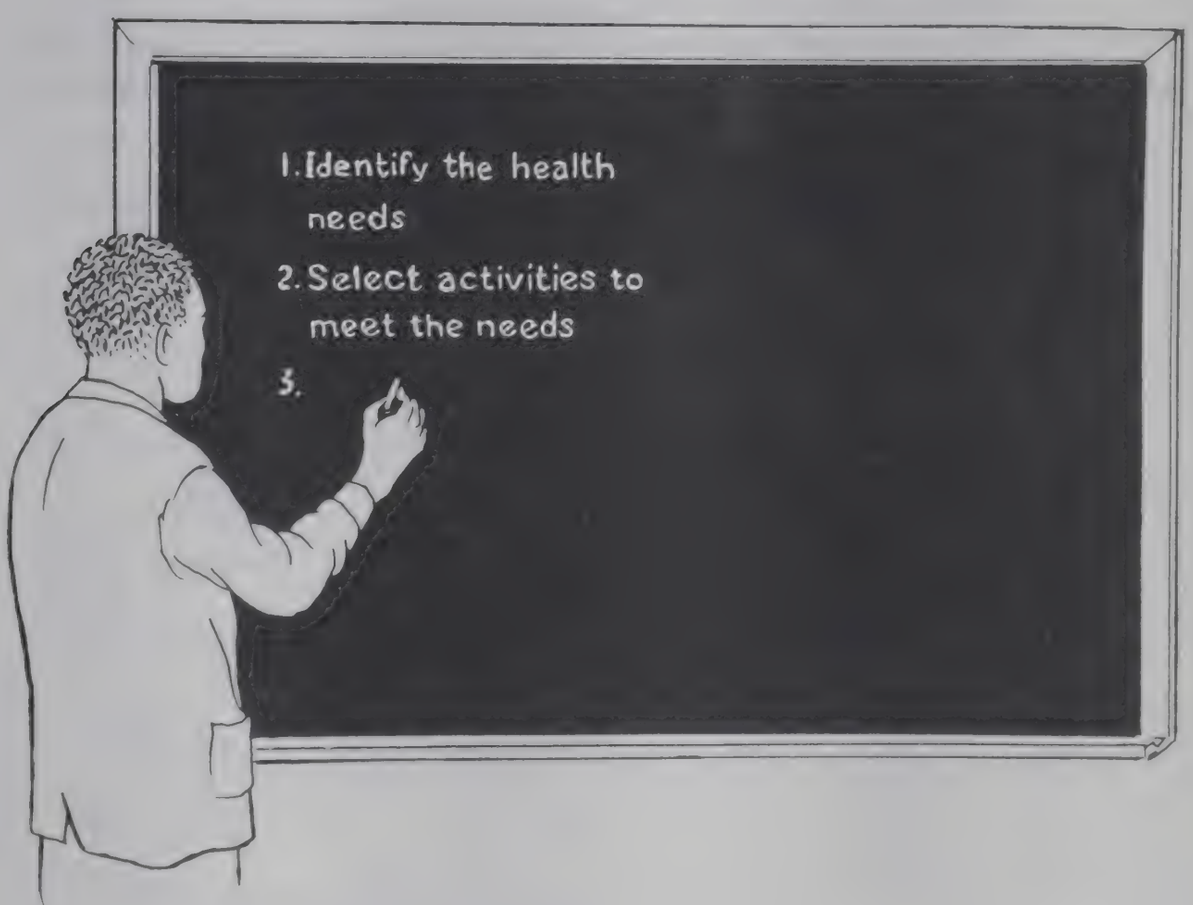
Do not talk to the chalkboard.

Make sure that your writing is large enough for everyone to see.

Keep your drawings simple.

Write clearly.

Do not put too much information on the chalkbaord at any one time.



Chalkboards are inexpensive and can be produced locally. They allow you to present a concept in a step-by-step way. They are adaptable to a range of purposes. But chalkboards also have limitations. Chalkboards require considerable skill for effective use. Your back is usually to the audience. Also, your content will be erased and cannot be preserved for future use.

b. Flipchart

A flipchart is a set of large drawings arranged to present content in a particular order. The drawings are fastened together at the top edge. They are fixed on a board or stand for support. The drawings usually follow a sequence to tell a story or show the steps of a procedure. As each drawing is used, it is flipped over to reveal the next drawing in the sequence. Follow these guidelines for using flipcharts.

Plan your presentation according to your objectives.

Use flipcharts with a large group of ten to fifteen students.

Make one drawing for each message.

Keep the drawings simple.

Write your message on the back of the drawing that comes before it. Then, people will see the picture while you read the message.

Position the flipchart so that everyone can see it. Stand to one side so you can read the message and the students can see the drawings.

Find out if the students understand the drawings.

Allow students to participate in the presentation.

Summarize and discuss the presentation at the end. Repeat important points.

Flipcharts are easy to produce when you have drawing skills. They always stay in sequence because they are bound at the top. Flipcharts are useful when you want to show the steps of a procedure or to tell a story with pictures.

Role-plays

Role-plays are an acting out of a real situation. Role-plays help students consider all aspects of a problem and let them experience differences in opinions, beliefs, and attitudes. Role-plays help students gain new knowledge and insight which they can apply in their jobs. Role-plays are especially useful in developing communication and teaching skills. For example, students can role-play discussions with community leaders to gain support for a healthy activity, discussions about the responsibilities of the health team, or discussions with mothers to identify health practices that can cause diarrhea.

Follow these steps to develop, prepare for, and carry out a role-play.

a. Identify your training objectives.

b. Collect facts, typical incidents, and problem situations related to the training objectives.

c. Describe the background and setting of the role-play.

d. Write instructions for each of the roles.

e. Write briefing notes for the participants and the observers.

f. Prepare notes to guide discussion after the role-play.

g. Collect props and supplies needed for the role-play to make it resemble the real situation.

h. Select and brief the participants and the observers.

i. Have the participants act the parts assigned to them. They should portray the roles as they believe the characters would behave in that situation.

j. Have the observer take notes or remember comments that they wish to share with the large group.

k. Follow the role-play with a discussion and review of issues that arose. Encourage participants and observers to share their comments and observations.

l. Have the next group of students repeat the role-play.

Case Studies

Case studies help students develop problem-solving skills. Case studies provide the students with basic information about a problem. The students study the information and apply their knowledge to solving the

problem. Some case problems have a definitive solution. Others are open-ended. For example, the case studies in the general clinical modules have one correct answer. More variation is expected in answers to case studies about managing personnel problems in the health center.

Case studies can be the starting point for a class discussion. Or the students can read and answer case study questions individually. Case studies can also be used as a small group problem-solving activity. The best way to write case studies is to document actual problems and issues in the health system.

Return Demonstrations

In a return demonstration you show the students how to perform a skill and then have the students practice the skill. The students learn by seeing, doing, and receiving comments on their performance. Follow these steps to prepare for and conduct a return demonstration.

a. Gather the necessary equipment or supplies. Locate equipment and supplies that are typically found in the actual setting. For example, if the students are from small, rural communities, use materials commonly available in small, rural communities. Do not use materials available only in cities, towns, health centers, or hospitals.

b. Explain the purpose of the demonstration. Tell the students that they will be expected to demonstrate the skill later.

c. Go through the steps of the demonstration clearly and slowly. Explain each step. Answer questions about the steps.

d. Summarize and discuss the steps at the end of the demonstration.

e. Ask for a volunteer to demonstrate to the others. Gently correct any mistakes. Encourage questions and discussion.

Direct Experience

Direct experience includes home visits and skill practice. Students practice their skills in a real-life situation.

a. Home visits

Home visits offer students an opportunity to get to know community members and learn about their needs and problems. The students can deal with actual problems right where they take place. They can teach people to care for and prevent health problems. They can also find out who is interested in taking part in community health activities. However, home visits do have some limitations. First, they take time. The number of families a student can reach is limited. Families not visited

might get discouraged. Also, the student may not be able to respond to all the problems of the family.

b. Skill practice

Skill practice means applying classroom learning to a work setting. Skill practice locations include hospital wards, outpatient clinics, health centers, and maternal and child health clinics.

Follow these steps to prepare for skill practice experiences.

Prepare objectives.

Prepare a schedule of activities. Encourage the students to take part in the planning process.

Arrange for transportation and financial support for the students.

Coordinate planning with the practice site representative.

Evaluate the experience in terms of the stated objectives, the performance, the attitude and recommendations of students, and the observations and recommendations of the practice site staff.

Selecting Teaching Methods

The following chart will help you select appropriate teaching methods.

Instructional Goals	Teaching Methods				
	ACTIVE LECTURE	ROLE-PLAY	CASE STUDY	RETURN DEMON-STRATION	DIRECT EXPERI-ENCE
Develop knowledge and attitudes	x	x	x	x	x
Develop skills		x		x	x
Apply skills		x		x	x
Review student performance		x		x	x

7.5 EVALUATING STUDENT PERFORMANCE

Evaluation of the students, the training materials, and the instructional process completes the training program. The information gathered during evaluation has both immediate and long-term importance. During training, the students receive reports of their progress toward meeting the learning

objectives. Students who progress slowly can plan additional learning opportunities with their instructors. Students who progress at a faster pace can help others or can broaden the depth of their learning. Evaluation information also helps the training staff plan future classes. The information about student performance and the opinions of the students about the teaching process will help identify those aspects of the program that are most successful and those that need improvement.

The prototype curriculum includes evaluation materials for the students and for the instructors. The student texts contain review questions and review exercises that help the students assess their knowledge and their problem-solving skills. The student texts also contain skill checklists to guide students as they learn community health, basic clinical knowledge and skills, general clinical, maternal and child health, and health center management procedures. The instructors' evaluation materials include selection tests, pretests, posttests, and the same set of skill checklists given to the students. Evaluation log books also help the instructors monitor skill performance.

Prior to training, the instructors must adapt these evaluation materials to reflect the adapted learning objectives. First, however, they must be able to prepare tests to measure knowledge and skill performance. To help them, the following section contains information on preparing test questions and checklists to measure what students remember and what they can do.

Assessing Knowledge

Knowledge recall is a prerequisite for problem-solving. The instructors assess student knowledge routinely throughout the training program. The instructors sometimes give selection tests to help identify candidates for the training program. They give pretests to assess the students' knowledge at the start of the teaching activities. During the teaching sessions, the instructors informally assess student progress by asking questions about the content of the session. The review questions and exercises in each module allow the students to assess their own progress. Finally, posttests assess how much information the students have acquired during the teaching of an entire module.

a. Selection tests

You may consider using a test of knowledge as one tool for selecting candidates for the training program. You can get an idea of the students' knowledge of subjects to be taught by sampling posttest questions from the modules. The most useful way to interpret the test results is to describe the types of information that each student knows and does not know.

b. Pretests

Pretests are tests of knowledge before instruction. Pretests can help you decide how and what to teach. Each prototype module has a corresponding pretest. The pretests are in the Training Evaluation Manual. Questions in the pretests reflect the objectives of the modules.

The prototype training schedule provides for two blocks of time for giving pretests. The first group of pretests for the Identifying the Preventive Health Needs of the Community module, Working with the Health Team module, basic clinical knowledge and skills modules, and general clinical modules are given during one day in the first week of the first month of training. The second group of pretests for the Meeting the Preventive Health Needs of the Community module, Working with Support Systems module, Training and Supporting Community Health Workers module, and the maternal and child health modules are given during one day in the last week of the fourth month.

Pretest scores are useless as numerical scores only. However, you can use pretests to help plan instruction. You can define each student's strengths and weaknesses in a particular subject. For example, suppose on the pretest for the Anatomy and Physiology module one student correctly answered all the questions about the heart and the respiratory system. However, he was unable to answer any questions about the genitourinary system. Another student could answer all the questions about the heart and the respiratory and genitourinary systems. If you were teaching, how would you use this information?

You can also find classwide patterns of knowledge. For example, suppose 95% of the class score below 80% on the pretest for the Identifying the Preventive Health Needs of the Community module. If you were teaching, how would you use this information?

After analyzing the pretests, you can adjust the training program in two ways. You can change the training schedule by adding, deleting, or changing the learning activities. Or, you can change the individual learning experiences for students. For example, you can assign students who have mastered or nearly mastered certain knowledge to be group leaders or tutors. They can share their experiences with those who have less knowledge.

c. Posttests

The knowledge tests at the end of each module are called posttests. The posttests are in the Training Evaluation Manual. The questions reflect the objectives from the corresponding module. Every student is ex-

pected to score at least 80% on each posttest. Students who score below 80% are given additional opportunities to learn and are tested again. The instructors choose remedial learning opportunities to match the weaknesses in content that the tests revealed.

Keep in mind, however, that the failure of the students to score above 80% on a posttest may also reflect problems with the student text material, the learning activities, or the quality of instruction. Or, the posttest may have been poorly constructed. For example, suppose that only 10% of the students correctly answered one question on the pretest, but 90% answered the same question correctly on the posttest. This is an 80% improvement in student response. But suppose that 10% answered correctly on the pretest and only 30% answered correctly on the posttest. This is only a 20% improvement. The instructor might not have emphasized the information in class. Or, the learning activity related to the second question might not have been effective. You can review the information and carry out additional learning activities so that the students have the knowledge they need to perform their jobs. With the next class you can change the learning activities.

Each of the evaluation tools for assessing knowledge in the prototype curriculum is made up of short answer questions, multiple choice questions, and case study questions.

a. Short answer questions

Short answer questions require students to recall a particular set of knowledge. Short answer questions usually ask students to make lists, explain causes, or fill in some missing information. Short answer questions can cover many topics in a relatively short period of time since the student's response is brief. Short answer questions are quickly and easily graded.

Here are some examples of short answer questions from the prototype modules.

Why is it important to look at the whole picture when you are trying to identify causes of health and disease in a community?

Health and disease are not the result of a single factor. Rather, several different factors usually work together to cause health or disease. Looking at the whole picture means looking carefully at all the possible causes of health or disease in a community. This is important because in order to prevent a disease, you must identify its causes.

What is the purpose of doing an inventory of facilities and equipment?

An inventory helps the mid-level health worker keep track of facilities and equipment. Therefore, it reduces the risk of loss, damage, and theft.

b. Multiple choice questions

Like short answer questions, multiple choice questions test the students' knowledge recall. But multiple choice questions can also test the students' ability to apply knowledge. Multiple choice questions consist of a "stem" that poses the problem and a list of three to five possible answers. The student must select the one correct answer from the list. The true or false question is a variation of the multiple choice question.

Good multiple choice questions are difficult to prepare. These guidelines will help you overcome many of the shortcomings of multiple choice questions.

Design the question to measure a learning objective.

Include only one issue in each question.

Use clear, simple language in the stem.

Give as much information as possible in the stem.

Present the stem in positive form.

Make all incorrect choices plausible.

Do not fill in the fifth choice with "all of the above."

Multiple choice questions are easy to grade. If the questions are well-written, controversy rarely arises about the correct answers. Here are some examples of multiple choice questions used in the prototype modules.

Circle the letter of your answer. A representation of all or part of a particular location is called:

a. A sample
b. A form
(c.) A map
d. A symbol

TRUE (T) OR FALSE (F)

T The fetus cannot deliver in a transverse position. A cesarean section is necessary.

c. Case study questions

Case study questions are a form of short answer questions. The student is given information about a problem. He is expected to analyze the information, draw conclusions, and make decisions. The prototype modules contain two types of case study questions. One type gives a short description of a problem and asks for specific information, such as a diagnosis. Here is an example of this type of case study questions.

A forty-four-year-old woman complains of feeling tired and sleepy. She is too weak to do her daily work and wants only to sleep. She has been very constipated. Her menstrual periods are regular, but for the last four months they have lasted longer and

bleeding has been heavier than usual. Her last menstrual period was two weeks ago.

A patient's vital signs are normal. Her face is puffy, and she seems disinterested in her surroundings. She moves very slowly. Her speech is slightly slurred. The patient reports that her hair breaks off easily. Her thyroid gland is slightly enlarged and is smooth when palpated. Her skin is dry, but no thickening can be detected. Further examination of her neck, chest, heart, arms, and legs reveals nothing abnormal.

a. What is your diagnosis?

Hypothyroidism

b. What patient care would you provide for this patient?

Refer the patient to the hospital.

The other type of case study question presents a detailed description of the medical history and physical examination findings for one patient. The student must respond to a set of questions. Here is an example of this type of case study question.

Name of Patient:	Field, Stella	Urine:	Normal	
Sex:	Female	Vital Signs:	Temperature	36.5°C
Date of Birth:	29 June 1941		Pulse	82
Date of Visit:	7 December 1979		Respirations	22
			Weight	73 kg

Medical History: The patient says her right eye has been painful for one week. The pain is gradually growing worse. Now it is a jabbing pain. She first felt the pain at the beach. She thinks some dust or sand got into her eye, but she did not pay any attention to it. Nothing seems to ease the pain. Wind or breeze in her eye hurts. A watery discharge is visible. Her vision is slightly blurred. She feels a slight, dull headache. Light causes discomfort. She has no cough. Her appetite is good. Her bowels are regular. Her urine shows no sign of problems.

Physical Examination: The pupils of her eyes are normal. The conjunctiva membrane and sclera of her right eye are red. Her tongue is moist. Her tonsils are normal. Her breath sounds are normal. Her chest, heart, and abdomen are normal. A gray spot is on the eye. The spot is not a foreign body.

Study the information given above. Then answer these questions.

1. What is the diagnosis?
2. What information in the case study was most helpful to you when you made your diagnosis?
3. Was any information missing from the case study that would have helped you make the diagnosis?
4. How would you treat this patient?
5. What advice would you give this patient?

Of the three types of questions, case study questions are the most useful for determining a student's ability to apply knowledge. They are also the most difficult to prepare. You develop case study questions from reports of patients' problems.

Assessing Skills

Skill assessment is the key to evaluating competence in a competency-based training program. Only by assessing students' performance can the instructors determine if the students are acquiring the necessary skills to do their jobs after graduation. Skill checklists in the student texts assess the students' skill in performing procedures. There is one skill checklist for each procedure that the students learn in their training. A skill checklist lists the essential steps in the procedure. The students are instructed to use the skill checklists as they learn and practice procedures. The instructors and field supervisors use the same checklists to monitor the students' competence in performing the procedures during their practice experience. The supervisor observes the student and rates him on each step of the procedure. The supervisor shares his comments about performance and suggestions for improvement with the student.

The students learn and master basic skills early in the program. Evaluation of higher level skills takes place as students have the time and the proper setting in which to practice. The continuous monitoring process enables the instructors to identify and help students who are lagging in their skill development.

Review the following examples from a skill checklist to become familiar with the format. Regardless of the type of procedure, each checklist in the prototype curriculum follows the same format.

SKILL CHECKLIST

Passing a Nasogastric Tube

This checklist has two purposes:

1) Students should use it as a guide for checking their own skills or other students' skills.
2) Supervisors should use it when they evaluate how well students can pass a nasogastric tube.

After observing a student, enter a rating in the appropriate column.

Rating: 1 = Inadequate
2 = Needs improvement
3 = Satisfactory
4 = Above average
5 = Excellent

When passing a nasogastric tube:	YES	NO	RATING	COMMENTS
1. Gather these supplies: rubber or plastic nasogastric tube, water soluble lubricant jelly, clamp, towel, basin, glass of water, straw, and a large syringe				
2. Inspect the tube. Make sure it is clean and not blocked				
3. Tell the patient the purpose of this procedure and how it will be done. Help the patient relax. Support him in a semi-reclined or sitting position. Inspect his nose. Choose the side which has the largest opening. Tell the patient that you will pass the tube through that side				

Each checklist has a rating scale. The observer rates each step in the procedure on a scale of 1 to 5, with 1 indicating inadequate performance and 5 excellent performance. A rating of 3 indicates acceptable performance. A student must receive a rating of at least 3 on each of the steps before he is considered competent.

Evaluation Log Books

Four log books help the instructors monitor skill performance. Each log book relates to certain competency areas in the training program. The students carry the log books during skill development, clinical rotations, and community phase activities. When they feel that they have had enough experience, they ask their supervisor to evaluate their skills. The four log books are the Basic Skills Log, the Diagnostic and Patient Care Log, the Community Phase Log, and the Certification Log for Mid-Level Health Workers.

a. Basic Skills Log

The Basic Skills Log contains a record of all the basic clinical skills in which the students must demonstrate competence before entering the clinical rotations of the module phase. The Basic Skills Log is used to record student performance in medical history, physical examination, and special assessment procedures. It is also used to record the students' recognition of abnormal symptoms and signs and their competence in sharing health messages. All Level I performance evaluation requirements for the basic clinical knowledge and skills, general clinical, and maternal and child health modules are recorded in this log book.

b. Diagnostic and Patient Care Log

The Diagnostic and Patient Care Log contains a list of all the diseases the student must be able to correctly diagnose upon completion of his clinical rotation activities during the module phase of training. It also includes a list of all the patient care, health promotion, and disease prevention procedures and skills the student is to master before entering the community phase of training. All Level II and III performance evaluation requirements for the diagnostic and patient care skills and procedures are recorded in this log book.

c. Community Phase Log

The Community Phase Log contains all of the Level I, II, and III performance evaluation requirements related to health center management, health team development, community health, and community health worker training and support. Evaluation in these areas differs from that in the other modules. Some Level I and II requirements are

prerequisites to entering the community phase of training, while other Level I and II requirements are actually completed during the community phase. The Community Phase Log explains this difference in more detail.

d. Certification Log for Mid-Level Health Workers

The fourth log book is actually a composite record of all of the abnormal signs, diseases, procedures, and skills which a student has demonstrated competence in handling. The mid-level health worker gives the log book to his supervisor upon arrival at his work site so that his supervisor knows exactly what the mid-level health worker has been trained to do. In addition, the supervisor can review and update this record periodically through continuing education so that the mid-level health worker always has a current certification of what he is able to do.

The Training Evaluation Manual describes the four log books in more detail.

7.6 ADAPTING THE INSTRUCTIONAL MATERIALS

The instructors can begin adapting the instructor's materials after they have developed competence in preparing and carrying out learning activities and preparing and using evaluation tools to assess knowledge and skills.

Adapting the instructional materials involves adapting:

The instructor's manuals
The evaluation tools
The evaluation log books

Adapting the Instructor's Manuals

The instructor's manual for each module is the instructor's guide for conducting the training activity. The instructor's manuals contain the schedules for teaching activities and the teaching plans for each learning session. The instructor's manuals also contain answers to the review questions and review exercises for each module unit.

Each day in the weekly schedules is made up of two three-hour teaching sessions. Most teaching plans describe the activities that take place in one three-hour session. A few teaching plans are for shorter periods of time.

Plans that describe blocks of skills practice are usually for longer time periods. The daily routine of the training center will influence decisions about the length of the training sessions. The weekly schedules indicate time for posttests. They also refer the instructor to teaching plans that will be scheduled at a later time. These teaching plans deal with skill development, clinical rotation, and community phase activities.

The teaching plans are prepared in a standard format.

a. Objectives

The objectives in the teaching plan cover the same content as the objectives in the student guide. Each objective is stated in terms of student performance. The number of objectives that are included in a teaching plan depends on the type and duration of the learning activities that the instructors select.

b. Methods

This section summarizes the instructions that are included in the learning activities, such as self-instruction, discussion, instructor demonstration, student presentations, group work, and clinical practice.

c. Materials

This section lists the equipment and written materials that are necessary to support the learning activities for the teaching plan. This section often makes reference to other parts of the curriculum, such as the Formulary or the Diagnostic and Patient Care Guides, where the student will find supporting information.

d. Preparation

This is a list of the activities that the instructor must complete in preparation for the teaching session. These activities often include preparing materials to be used during the session, selecting patients for the students to visit and examine, and arranging for supervised practice experiences.

e. Learning activities

This is a step-by-step description of the specific methods and techniques that the instructor will use to teach the session. The learning activities described in the teaching plans are summarized in the student guides so that the students are informed about the instructional process. Each activity is assigned a specific block of time.

f. Answers to review questions and review exercises

The answers to review questions and review exercises are included to guide class discussions.

The instructors should follow these steps to adapt each instructor's manual.

a. Review each unit in the corresponding adapted student text in sequence. Note changes in the objectives and the content.

b. Adapt the objectives for each teaching plan to reflect the adapted objectives in the student text.

c. Adapt the learning activities to reflect the adapted objectives. Practice using a variety of teaching methods before adapting the activities. Choose methods that are appropriate to achieving a particular objective and that the instructors are comfortable using.

d. Adapt the methods, materials, and preparation sections of the teaching plan to reflect the adapted activities.

e. Adapt the answers to the review questions and review exercises to reflect the adapted narrative in the student text.

f. Adapt the training schedule.

Adapting the Evaluation Tools and the Evaluation Log Books

The instructors and supervisors will have to use the evaluation tools and evaluation log books in their work. If there is enough time in the scheduled curriculum adaptation process, you can work with the instructors and supervisors to adapt these evaluation materials. This is, however, not mandatory. The content of the evaluation materials reflects the adapted objectives, review questions, and skill checklists. This information needs only to be transferred to an agreed upon format. Who does this is not important. What is key here is that the instructors and supervisors understand and properly use the evaluation materials that are an integral part of the training program.

To adapt the evaluation materials, follow these steps:

a. Adapt the pretests and posttests

Select a sample of questions from the adapted review questions for each module. This sample of questions becomes the posttest. Select a sample of questions from the posttest to become the pretest.

b. Review the adapted skill checklists

Review the skill checklists for the procedures taught in the module. Be sure the skill checklists summarize each step detailed in the Patient Care Procedures reference manual. Revise the adapted skill checklists or develop new skill checklists as necessary.

c. Adapt the evaluation log books

Review the evaluation scheme that you prepared in Section 6. Review the Training Evaluation Manual. Compare your evaluation scheme with the prototype evaluation logs in the Training Evaluation Manual. Adapt the prototype evaluation logs to reflect the revised performance requirements.

ACTIVITY 17

Describing the Responsibilities of the Instructors and Supervisors

In a workshop, seminar, or series of meetings, you will develop role and responsibility descriptions to guide your work and the work of the training staff, the other instructors, the guest instructors, and the clinical and community supervisors.

First, describe the general responsibilities of each person. Encourage each person to discuss how his particular academic and work background can contribute to the program. Also encourage the participants to discuss their special interests and skills.

Then ask each participant to prepare a written description of his contribution to the program, including daily responsibilities in the classroom and during practical experiences as well as responsibility for teaching specific content.

Share the descriptions with the larger group. Discuss the roles of each participant. Agree on and assign individual responsibilities. Be prepared to make decisions for the group if they cannot agree or if the group loses sight of the program goals.

ACTIVITY 18

Using Active Approaches to Learning

At the workshop, seminar, or series of meetings, you will help the instructors and supervisors practice using the teaching methods to be used in the training program. Gather these materials:

Adapted student texts for three or four modules

Corresponding prototype instructor's manuals

Slide projector, slides, slide narrative, screen, flipchart, or chalkboard, as necessary

Then, follow these steps.

1. Divide the participants into groups of four. Tell each group to present the content of Unit 6 from the Diseases of Infants and Children module using one teaching method. Each group should choose a different method such as small group work, role-play, demonstration, case study, active lecture with chalkboard, or flipchart.
2. The groups prepare their presentations. Each presentation should last about ten minutes.
3. The first group makes its presentation. The other participants act as students. The participants critique and discuss the first presentation. Help the participants use the critiques to develop a checklist for evaluating presentations. Use the skill checklist in Unit 6 of the Diseases of Infants and Children module as a guide. Be sure the groups agree on the skill checklist.
4. Have the other groups make their presentations. The rest of the group should participate in the presentation as required. They should use the checklist to evaluate the presentations.
5. Lead a discussion of the different teaching methods and their appropriateness for achieving certain objectives. Refer to the table in Section 7 for selecting teaching methods. Have the participants think of all the teaching methods that they can use and the purpose that each method can serve.
6. Have each group choose a teaching plan from a prototype instructor's manual. Have each group compare the teaching plan with the corresponding adapted student text.

7. Using the prototype teaching plan as a guide, each group should make a twenty-five to thirty-minute presentation.
8. Lead a discussion of the presentations and plan how to adapt the teaching plans for the instructor's manuals in the curriculum.

ACTIVITY 19

Adapting the Instructor's Manuals and Evaluation Tools

You will direct the training staff, instructors, guest instructors, and supervisors as they adapt the instructor's manuals and evaluation tools. They will adapt the following materials: training schedules, teaching plans, answers to review questions and exercises, pretests, and posttests.

First, introduce each step in the adaptation process. Then assign two or three people to each of the following subject groups: health center management, community health, basic clinical knowledge and skills, general clinical, and maternal and child health. Assign each group to adapt the instructor's manuals and evaluation tools for one module in their subject area. Afterward, the groups can complete the module revisions independently.

Follow these steps.

1. Adapt the teaching plans for the module.
   a. Direct the groups to select one student text unit that was adapted during the earlier adaptation activities. They should prepare teaching plans for that unit. They should adapt the objectives and activities for the teaching plan and explain why they selected the activities.
   b. Each group should present a fifteen to thirty-minute lesson based on their adapted teaching plan. The other participants will act as students.
   c. Members of the large group should critique the lesson using the following guidelines.

      Were the objectives clearly stated?

      Were the objectives achieved?

      Did the instructors encourage the students to participate in the activity?

      Did the instructors measure the knowledge or skill of the students:

      Before the lesson?
      During the lesson?
      After the lesson?

d. If the groups need more experience, have them select another unit and repeat this step.

2. Adapt the answers to the review questions and exercises.
   a. Direct the groups to review and adapt the answers to the review questions and exercises for their unit. If this step was completed during prior adaptation activities, ask the group to review and critique the adapted review questions and exercises.
   b. Have the groups share their adapted answers with the entire group for critique.
3. Adapt the evaluation tools.
   a. Have each group review the pretests and posttests that accompany their module. Remind them that the test questions are a sample of the review questions.
   b. Have the groups adapt the tests to reflect changes in the review questions.
   c. Have the groups compare the tests to the module objectives to determine if the questions cover the range of objectives in the module. Have them add or delete questions to reflect changes in objectives or in content.
   d. Have each group adapt the skill checklists that accompany their module.
4. Prepare an adapted weekly schedule.
   a. After the teaching plans are adapted, the groups should review and adapt the weekly schedule for the module to reflect new classroom and practice activities. At this time, they should begin to consider who should take responsibility for presentations and for guiding the students through various activities.
   b. Have the groups present their schedules to the full group for review and critique. Watch for these common problems:

      Insufficient practice opportunities before evaluation

      Inappropriate or awkward sequence of learning activities that ignores or eliminates some aspect of the training sequence

      Lack of opportunity for guidance during practice of new skills

ACTIVITY 20

Adapting the Evaluation Log Books

Follow these steps to adapt the evaluation log books.

1. Review the evaluation scheme that you prepared in Unit 6.
2. Review the Training Evaluation Manual.
3. Compare your evaluation scheme with the prototype evaluation log books in the Training Evaluation Manual.
4. Adapt the prototype evaluation log books to reflect the revised performance requirements.
5. Compile the log books into a set of evaluation records for students to use as they take part in the training program.

SECTION 8
Managing the Training Program

PROGRAM MANAGER'S GUIDE

OBJECTIVES

After completing the activities in this section, you should be able to:

1. Establish the training program by:
   - Identifying training needs
   - Submitting requests for resources
   - Tracking the requests
   - Obtaining the resources
2. Prepare for training by:
   - Identifying and orienting staff
   - Selecting mid-level health worker students
   - Developing training program policies for students and staff
   - Developing a student record keeping system
   - Developing program and staff evaluation procedures
   - Developing a way to report on the progress of the training program
   - Preparing the classrooms and offices
   - Editing, translating, and reproducing the modules
3. Conduct training by:
   - Planning for the different phases of training
   - Monitoring student performance
   - Monitoring staff performance
   - Reporting the progress of training

To achieve these objectives, you must know:

1. The process for identifying training needs, submitting requests for resources, and tracking the requests
2. The process to be followed when preparing for the training program
3. The process of conducting the training program

RATIONALE

The process for organizing and operating a program to train mid-level and community health workers begins as soon as you have taken on the job of program manager. You carry out the activities that relate to establishing the training program simultaneously with the decision-making activities discussed in Sections 1 and 2 and the curriculum

adaptation and instructor preparation activities discussed in Sections 3 through 7. As you begin the process of establishing the training program, many administrative and management issues will surface. You will have to decide where training will take place, who will be involved, what equipment should be available, how you will start the planning process for training, and how you will conduct the training program.

This section will help you identify and resolve some of the administrative and management issues that you will face when you plan and conduct the training program. The section is divided into three parts:

Establishing the training program
Preparing for the training program
Conducting the training program

PROGRAM MANAGER'S NOTE

PROGRAM PLANNING AND MANAGEMENT ACTIVITIES OCCUR SIMULTANEOUSLY WITH DECISION-MAKING, CURRICULUM ADAPTATION, INSTRUCTOR PREPARATION, AND TRAINING ACTIVITIES.

8.1 ESTABLISHING THE TRAINING PROGRAM

To establish the training program, you must hire staff, find locations for offices and classrooms, and obtain the needed equipment and supplies. To do this, you will need funds. It is assumed that you will be working in the ministry of health and that the ministry will provide the funds that you will need to start and operate the training program. In most cases, however, the funds will not come directly to the training program. Rather, funds will come through ministry departments, such as finance, personnel, and central medical stores. You must define the needs of the training program, submit requests for resources to the appropriate departments, and track the requests to ensure a timely response.

Identifying Training Needs

You must first identify for the appropriate administrator the resources that you will need to carry out the program. These include the following:

a. Staff

List all the full-time and part-time ministry of health staff that you will need to adequately carry out the training program. Include the mid-level health worker training staff as well as secretaries, cleaners, drivers, and other support personnel.

b. Facilities

List the rooms and offices that you will need to carry out the training program. Include classrooms, student study areas, storage areas, and offices. Be sure facilities are available for lodging and food for the students and staff, as necessary.

c. Equipment and supplies

List the equipment that you will need to carry out the training program. Include items needed for the offices, classrooms, study areas, and learning activities during training. Refer to the list of training equipment and supplies listed by module in Section 4. Also consider the following list of office and training supplies and equipment.

Office Supplies and Equipment

- Binders
- Correction fluid
- Dividers
- Erasers
- File folders and labels
- Grease pencils
- Notebooks
- Paper clips
- Pencils
- Pens
- Rubber bands
- Rulers
- Scissors
- Stapler and staples
- Stationery
  - Letterhead and bond typing paper
  - Business size letterhead envelopes
  - Large manila envelopes
- Tape
- Transparency sheets
- Typewriter ribbon

- Book cases
- Chairs
- Desks
- File cabinets
- Storage cases for equipment
- Typewriters

Classroom Equipment

- Blinds or curtains for windows
- Chairs
- Chalkboard
- Desks
- Examination table
- Tables and chairs for study area

Training Supplies and Equipment

- Anatomical models
  - Female pelvis model
  - Head model with detachable parts
  - Pregnancy model
  - Skin model
  - Torso model with detachable organs
- Plastic skeleton with stand
- Screen
- Slide projector
- Wall charts
  - Circulatory system
  - Female reproductive system
  - Male reproductive system
  - Muscle system
  - Physical changes during pregnancy
  - Urinary system

d. Transportation

List the transportation needs of the training and support staff and the students. List the number of vehicles you will need and how often they will be used per week. Briefly describe how the vehicles will be used and give an estimate of the distances and road conditions that will be traveled.

e. Module production

You will need to edit, translate, and reproduce the module components, including the student texts, reference manuals, instructor's manuals, and evaluation materials. It will take close coordination with the ministry of health's administrative representative to ensure that the modules are produced in time for their expected use.

First, list the number of module components. For example, the prototype training curriculum for mid-level health workers includes:

22 student texts
5 reference manuals
22 instructor's manuals
4 evaluation log books

It also includes the Supervising and Supporting Mid-Level Health Workers module, Continuing Education Manual, Training Evaluation Manual, Management Analysis Training Module and management system workbooks, and District and National Planning and Management Workshops Manual.

Then list the total number of pages per component and the number of copies you will want printed.

For example:

COMPONENT	TOTAL NUMBER OF PAGES	NUMBER OF COPIES NEEDED
Physical Examination module Student Text	222	40
Physical Examination module Instructor's Manual	92	5

Module production is discussed in more detail in Section 8.2.

Submitting Requests for Resources

Submitting the list of training needs to the appropriate department in the ministry of health is one of the most important steps in the process. Each country and each ministry has its own process for reviewing requests for funds and services. You may have to submit a great deal of information about the system in order to receive what you requested. Develop a liaison

with a member of the ministry of health to help you get through the process. The liaison person can help you by telling you: the steps in the process, how to submit the requests, how long it usually takes to get through the process, and whom to contact if there are any questions or problems. Ask the liaison person to help you put your requests in the proper format and to submit them using the correct procedure. Then submit your requests.

Tracking the Requests

Once you have submitted the requests, you need to periodically check with the appropriate departments to make sure that the requests are going through the needed administrative steps. If problems develop and the process slows down, devise a way to help your request get through the process. If that is not possible, develop alternate plans so that the training program can begin as planned.

Obtaining the Resources

Once the necessary approvals have been given, you can begin preparing the training program.

8.2 PREPARING FOR THE TRAINING PROGRAM

Preparing for training involves the following.

Identifying and Orienting Staff

You need to identify and orient the training staff and the support staff.

a. Training staff

One of your major tasks will be identifying, recruiting, and preparing the training staff. Ideally, the mid-level health worker instructors will be selected early enough to participate in the entire decision-making and adaptation process. Sometimes, however, potential instructors are identified during the curriculum adaptation activities. Regardless of when or how they are selected, instructors often need training in competency-based training methods that include: active teaching methods, continuous evaluation based on learning objectives, and individualized remedial support for students. You can teach the instructors these skills, or a person experienced in using competency-based training methods can prepare the instructors for their new teaching responsibilities. Section 7 contains more information about instructor preparation.

b. Support staff

To operate a training program effectively, you need to hire or have assigned to the program one or two secretaries and one cleaner. If you will be using a ministry of health vehicle for training activities, a driver will probably also be assigned to the program.

The support staff will help you meet all the administrative demands of the training program. They need to be prepared to help with the training activities just as thoroughly as the instructors and supervisors. The secretaries need to be familiar with the purpose of the training program, the training schedule, the curriculum components, and all of the individuals who will be involved in training. If the secretaries will be typing any of the module revisions, they need to know some medical terminology. The cleaner will need to know where equipment is kept and how to safely store equipment. The driver needs to be familiar with the training schedule so he knows when and where he is expected to transport training staff members and students.

Selecting Mid-Level Health Worker Students

The student selection process begins even before the training curriculum is adapted and continues as the materials are being prepared. Any person selected must be willing to return to a rural community to work for three years after graduation. In the past, the candidates for mid-level health worker training have included nurses, midwives, and public health nurses. Health workers trained for specific activities such as immunization and drug dispensing are also a good source of students. Occasionally, the program has been used to prepare candidates without previous training or experience in health care. In that case, the program must be extended to provide additional practice opportunities.

The selection process for mid-level health worker students includes:

Establishing selection guidelines
Recruiting candidates
Screening candidates and selecting students

a. Establishing selection guidelines

The standards used to identify acceptable students are called selection guidelines. Selection guidelines specify the minimum requirements for admission to the program. Selection guidelines help you identify those applicants who are most likely to succeed as students and as workers. Decisions about guidelines for student selection are made as part of the policy level administrative decisions. See Section 2.

You can refine the selection guidelines after the first few classes of mid-level health workers are evaluated. Use the students in the early classes as a source of baseline information about the most desirable qualities for future students.

b. Recruiting candidates

You must establish administrative procedures to recruit eligible candidates. One possibility is to mail a program announcement and application forms to the current employers of potential candidates. Include:

An overview of the role of the mid-level health worker
A description of the training program
Admission requirements
Student expenses, such as housing, food, transportation, books, and equipment
Information about financial aid, if available
Persons to contact for further information
Deadline date for submitting an application

c. Screening candidates and selecting students

A committee of health and education experts usually selects the mid-level health worker students. The committee members often include the program manager, a representative of the ministry of health, a member of the licensing or certifying board for health personnel, representatives of other related training programs, and members of the training staff.

If the selection guidelines specify any basic knowledge and skill requirements for admission, the selection committee can give a test to certify certain minimum levels of knowledge and skill. For example, an entry level requirement may include knowledge of anatomy, physiology, and basic skills like giving injections and taking vital signs. A test can provide information on what the applicant knows and can do. Although tests cannot indicate how the applicant will actually perform, they can predict future performance. After a test has been administered to a few classes, a relationship between test scores and successful performance may emerge that will help you select students for future classes.

The selection committee reviews the applications and test scores to identify applicants who meet the minimum requirements. They invite eligible candidates for an interview. During the interview, you can obtain information from the applicant as well as provide the applicant with information about the program and the expectations of students. The candidate has an opportunity to ask questions and discuss his interests and goals.

Be sure to plan questions in advance to direct the interview. If the applicant is to be interviewed by the entire committee, decide on the role of each member before the interview begins. Design a rating form to fill out on each candidate interviewed.

Allow adequate time for each interview so that both you and the candidate answer all the questions. Let the candidate do most of the talking. Ask the candidate questions to clarify the information on the application form. Focus your attention on the candidate's technical qualifications and experiences. Throughout the interview, observe and listen carefully to what the candidate says.

The following are samples of questions to ask the candidate and observations to make during the interview.

CATEGORY OF QUESTIONS	SAMPLE QUESTIONS	OBSERVATION
Technical	"How do you learn best?"	How well does the candidate communicate information?
		Does he have the ability to elaborate on the subject and express limitations?
	"What are your previous employment experiences and responsibilities?"	Verify and clarify the information on the candidate's application. Explore his relationships with co-workers and supervisors.
	Ask a hypothetical clinical question based on the candidate's prior experience.	Note the accuracy of his knowledge.
Learning Characteristics	"What are your strong and weak points?"	Note the candidate's knowledge of his own strengths and limitations.
	Set up a relevant situation for the candidate to react to, such as: A possible problem with a supervisor or employer	Note any insecurity, defensiveness, rejection of the behavior of others, or inconsistencies in the candidate's responses.
	Dealings with a resentful staff person	
	Dealings with certain types of patients, such as alcoholics	

CATEGORY OF QUESTIONS	SAMPLE QUESTIONS	OBSERVATION
	"What are your long term goals?"	Do the candidate's goals conflict with the role and life of a mid-level health worker? Are his expectations realistic?
Personal Characteristics	"What three things are most important for you to have in your job?"	Note any remarks that conflict with the role and life of a mid-level health worker.
	"How well do you work independently? Under supervision?"	
	"What does becoming a mid-level health worker mean to you personally?"	Assess the candidate's motivation and enthusiasm for becoming a mid-level health worker.
	"What does your becoming a mid-level health worker mean to your family?"	
	"What are the potential problems that could prevent you from successfully completing the program?"	Note any potential problems such as time constraints or family commitments.

When all the applicants have been interviewed, the selection committee should meet to make the final decision regarding admission to the program. Notify each applicant of your decision, whether he is accepted or not. Provide the candidates you have selected with the following information:

Location of and directions to the training site
Registration date and time
Program training dates, training sequence, and daily schedules
Student policies regarding absence, illness, and leave time
Availability of housing
Availability of transportation
Financial arrangements and training costs
Supplies and equipment to be brought to the training site

Request that students who expect to enroll in the training program notify the program of their intent by a specific date. Prior to the arrival ofuhe students make the following arrangements, as needed:

Coordinate the transfer to training with the student's current employer

Identify housing options and make necessary arrangements

Identify transportation options and make necessary arrangements

Plan student services for academic counseling, financial aid, and health services

Prepare individual student records. Include the completed application form or information sheet, references, test results, and any required health or other records

Plan the orientation schedule and activities

Developing Training Program Policies for Staff and Students

Policies are statements of how the training program will operate. They tell each person involved in the program exactly what is expected of him. Well designed, well written policies can mean the difference between a smoothly run training program and one that is continuously in chaos. There are two types of policies: those established for the operation of the training program to serve as guides for the training staff, and those developed as guides for the students.

Write the policies in a policy handbook. The content might include the following.

Training Program Policies

Employee policies
1. Employment
   a. Employment procedures
   b. Probationary period
   c. Recruiting and selecting new employees
   d. Retirement
   e. Termination
2. Attendance
   a. Absence (illness, medical appointments, leave of absence, maternity leave, funerals, illness in the family)
   b. Work hours
3. Salary
4. Benefits
   a. Holidays
   b. Retirement
   c. Overtime
   d. Vacation

Organization of training staff

Equipment and supplies
1. Inventory of office equipment and supplies
2. Inventory of training equipment and supplies
3. Maintenance of facilities and equipment
4. Purchasing
5. Requisitions from ministry of health stores

Staff evaluation procedures

Student relations
1. Student selection procedures
2. Training schedule
3. Student records
4. Student orientation

Ministry of health relations
1. Reports to the ministry of health

Guest instructor and clinical and community supervisor relations
1. List of guest instructors
2. List of clinical and community supervisors
3. Procedures for notifying guest instructors and clinical and community supervisors of scheduling
4. Hospital, out-patient department, health center, and training program relations
   a. List of hospitals, out-patient departments, and health centers used during training
   b. Procedures for notifying facilities about training program plans, format of continuing education newsletter, and format of letters to be sent prior to student practice at the facilities
5. Staff orientation

Student Policies

Training schedule

Training staff relationships

Use of classroom and study facilities

Description of training program and rotations

Requirements for graduation

Evaluation procedures

General conduct
1. Attendance requirements
2. Leaves of absence
3. Student honesty

Grading policies

Developing a Student Record Keeping System

Student records are a central source of information on student performance. Student records help the instructors and supervisors monitor each student both as an individual and as part of a group. The records are also useful in planning and revising future training programs.

You and your staff must develop a system for maintaining student records. You must decide the types and amounts of information to collect, the format for recording the information, and the method for storing the

records. Records are most easily maintained if knowledge and skill performance are recorded separately. They should be consistent with the performance records in the evaluation log books.

Developing Program and Staff Evaluation Procedures

Evaluation is the key to successful competency-based training. Evaluation is also the key to successful management of a competency-based training program. Program performance and staff performance are interrelated. The program is the vehicle by which the staff attempts to attain certain goals. The program meets its goals through the efforts of the staff. A well designed and well run program becomes a framework in which the staff can operate. A poorly designed or badly managed program can cause even the best of staffs to function poorly. Likewise, if the staff is poorly prepared or not functioning well, even the best designed program will progress poorly.

Evaluation should be an ongoing process to help you make judgments about the effectiveness of the program and the staff. Evaluation will help you make decisions, policies, and plans about the training program and its future.

a. Evaluating the training program

To evaluate the program, you should:

List the program areas to be evaluated. These include objectives, policies, philosophy, training schedule, training curriculum, learning activities, training sites, student performance, and graduate performance.

Develop a checklist for each program area. For each area, list questions that will uncover parts of the program that need investigation. The following is an example of a program evaluation checklist.

Program Evaluation: Training Schedule

	YES	NO	COMMENTS	PROPOSALS FOR IMPROVEMENT
1. Are all the necessary activities listed on the schedule?				
2. Are the activities listed in the correct sequence?				
3. Is enough time allotted for each of the activities on the schedule?				

	YES	NO	COMMENTS	PROPOSALS FOR IMPROVEMENT
4. Is someone given responsibility to see that each of the activities is completed?				
5. Was the schedule printed on time?				
6. Were all participants informed about their responsibilities as listed on the schedule?				
7. Were changes in the schedule made after training started? Why?				

Answer the questions on the checklist.

Involve all the people who take part in the training program and all those who are affected by the evaluation. You can print the evaluatoin checklist, circulate it, and ask individuals to note their responses, write in their comments, and give suggestions for improvements. Or, you can interview individuals. Use the written questions as a basis for discussion with students, instructors, supervisors, and others to find out their perceptions of the program.

b. Evaluating the training staff

To evaluate the training staff, you should:

Meet with the staff and decide by what criteria they will be evaluated. For example, the staff could decide to be evaluated on:

Whether they have met the objectives as listed in their job descriptions

Whether they have achieved desired results

Write out exactly what each staff member will be evaluated on.

Set a time for the first and subsequent meetings where you will officially discuss each staff member's performance.

Developing a Way to Report on the Progress of the Training Program

Reporting helps to keep those who may not be directly involved in the day-to-day program activities aware of the progress of the program. Reporting records what has taken place so that:

Interested persons have the information they need to analyze the training program

The progress of the training program is documented

The program can be evaluated

The lines of communication between the ministry of health and the training program and the community and the training program stay open

Oral or written reports about the training program should include:

A statement of what the training program hopes to accomplish

A description of the activities that the training program is involved in to meet goals

Accomplishments of the training program and results of student performance

Preparing the Classrooms and Offices

You are usually involved in planning the physical environment for training. You select and prepare both the classrooms and the administrative areas.

a. Classrooms

Although you may have little control of the facilities that are available for the classroom activities, you can maximize the comfort of the classroom and enhance the opportunity for students to participate in the learning process. Consider these factors that can influence the conditions of learning:

Location of the classroom
Comfort of the students
Use of physical space in the classroom
Placement of furniture and learning aids
Seating arrangements

When there is an opportunity to decide about the classroom conditions, it is helpful to analyze the condition of the classroom for each of these five factors. Refer to the checklist for selecting and preparing a classroom.

CHECKLIST FOR SELECTING AND PREPARING A CLASSROOM

	YES	NO	COMMENTS	PROPOSALS FOR IMPROVEMENT
LOCATION				
1. Is the classroom safely and easily accessible to students?				
2. Is the classroom accessible to administrative and clerical support?				
3. Is the noise level in the area low enough so the learning process can continue undisturbed?				
4. Is the classroom accessible to clinic-based learning activities?				

COMFORT

1. Is ventilation and heating available as necessary?
2. Is the lighting adequate?
3. Is the classroom accessible to food, water, toilet, and handwashing facilities?

SIZE

1. Is the room large enough to accommodate all of the students and participants?
2. Is the layout of the room flexible enough to accommodate large group presentations, small group discussions, and audiovisual presentations?
3. Are adequate and secure storage facilities available for equipment and materials?
4. Are students able to hear and see clearly?
5. Is adequate work space available for students?
6. Is adequate wall space available for posters and displays?
7. Is space available for individual study?
8. Is space available for students to practice skills?

FURNISHINGS

1. Is adequate, comfortable seating available?
2. Is desk space available for students to write?

LEARNING AIDS AND EQUIPMENT

1. Are audiovisual aids such as chalkboard, eraser, and overhead projector available?
2. Is there a power source and extension cords for audiovisual equipment?
3. Is there a white wall or can a cloth be attached to a wall if a screen is not available?
4. Can the room be darkened for use of film projectors?
5. Is skill practice equipment, such as an examination table, charts, and models, available?

---

b. Offices

Much of the administrative work associated with training will be done in an office. Arrange the office space so that everyone has a comfortable, quiet place to work. If there is not enough office space for every-

one to have his own office, then designate an area for each staff member that is for his use only. The amount of office space given to each staff member will depend on the type of tasks that he will be assigned. For example, if the secretaries are to type modules and correspondence, answer the telephone, and keep the student records, then they need enough work space for typing and storing records. You also need to arrange for areas for special use, such as storing equipment and supplies and counseling students.

Editing, Translating, and Reproducing the Modules

After the curriculum is adapted, you must coordinate the editing, translating, and reproducing of the materials so that the modules are ready when the instructors need them.

a. Editing

Because of the number of people involved in adapting the training curriculum, it is useful to establish an editorial committee to review and finalize the adapted materials. When many writers are involved in adaptation, a review of materials by the committee can help people agree about content. An editorial committee can also improve the quality of the revised materials. No individual can easily review and edit several modules and manuals and at the same time ensure correct medical content and consistency among the components. With several people passing judgment on the proposed final version of a module, each person can look at a different aspect. This allows a more thorough review.

Style guidelines can help limit the degree of variation among the writers. The style guidelines listed below were used to prepare the prototype modules. Share them with the people who adapt and edit the modules.

> Use short sentences. Keep sentences to fewer than twenty words. Long sentences confuse students.
>
> Use simple, familiar words. Use the same word for the same thing. Use only essential technical words. Define technical words. Then explain them.
>
> Use few pronouns. Repeat nouns to make sentences easier to understand.
>
> Keep sentence structure simple. Use subject-verb-object sentences. Express only one idea per sentence.
>
> Make positive statements. Avoid the negative if possible. Positive statements are easier to understand.

Make active statements. Active voice is clearer than passive voice.

List steps in logical, chronological order.

Note that the prototype materials refer to the mid-level health worker as "he." This decision was made to ensure ease of reading and comprehension. It does not imply that mid-level health workers are or should be male.

b. Translating

The prototype materials are written in English. In many countries English is not the first language. Even when English is the official language of the government, it is usually a second or third language to many people in rural areas. You may have to translate the materials into the appropriate languages or dialects so that the health workers can understand and use them. This is particularly true of community health worker materials. Community health worker materials should be translated so that the community can take part in the learning process and so that community health workers can use the materials in their communities.

The person you select to translate the materials should be familiar with life in the community. He should know the local names of different illnesses. He should know the way of talking about pregnancy and childhood problems. He should understand the English language and not translate literally word for word.

Encourage the translator to follow the guidelines established for the editorial committee. Be sure he uses short, simple words that people in the community use every day. He should use the local names for health problems whenever possible. He should keep the sentences short and use active voice.

Test the quality of the translation by reading it to a person from the community. If there are any words he does not know, use simpler words.

c. Reproducing

Because of the length of the prototype curriculum, you must carefully consider the alternatives for reproducing and binding the materials early in the planning process.

Consider these questions to help you choose the best method for duplicating the materials:

How many copies will you need?

What kind of paper is available? Who will provide it?

What is the delivery date for paper? For copies of final

materials?

Will the materials be printed on one side or both sides of the page?

How will the materials be reproduced and bound?

The method of reproducing the materials depends on the number of copies you need. Calculate the number of copies needed for mid-level health worker students, community health workers, and instructors. For one class of twenty mid-level health workers, you will need thirty sets of the student texts and reference manuals, four to six copies of the instructor's manuals, and fifty to one hundred copies of the community health worker workbooks. Estimate and compare the costs for different reproduction methods, such as mimeograph, photocopy, and offset or letter press printing. If you order more than one hundred copies of a material, printing may be the most economic and efficient method to use. Check into governmental printing facilities.

8.3 CONDUCTING THE TRAINING PROGRAM

All the plans and decisions that you make before the start of the training program begin to make sense once the training program begins. Once training begins, you can refine and adapt your plans so the training process fits the perceptions and needs of the instructors and the students as they involve themselves in the process. The major activities that you will carry out during training are described below.

Planning for the Different Phases of Training

The training schedule prepared in Section 6 outlines the sequence of training activities. From a planning perspective, the schedule has three major groups of activities: those associated with the modules, those associated with the clinical rotations, and those associated with the community phase. You need to plan the activities of these three major groups at least two to six months before you expect them to be carried out.

a. Activities associated with the modules

Read the instructor's manual for any given module at least two months before the module is to be taught. Gather the needed supplies. Arrange for classroom and clinical practice space.

Inform all guest instructors and supervisors by letter of the dates that

they will be involved with training. Briefly summarize for each person what his responsibilities will be. Send letters or personally visit all hospitals, outpatient departments, clinics, and communities to inform them of when the students will be arriving for their practice experiences. Briefly describe what the students will be doing while in the community or at the facility.

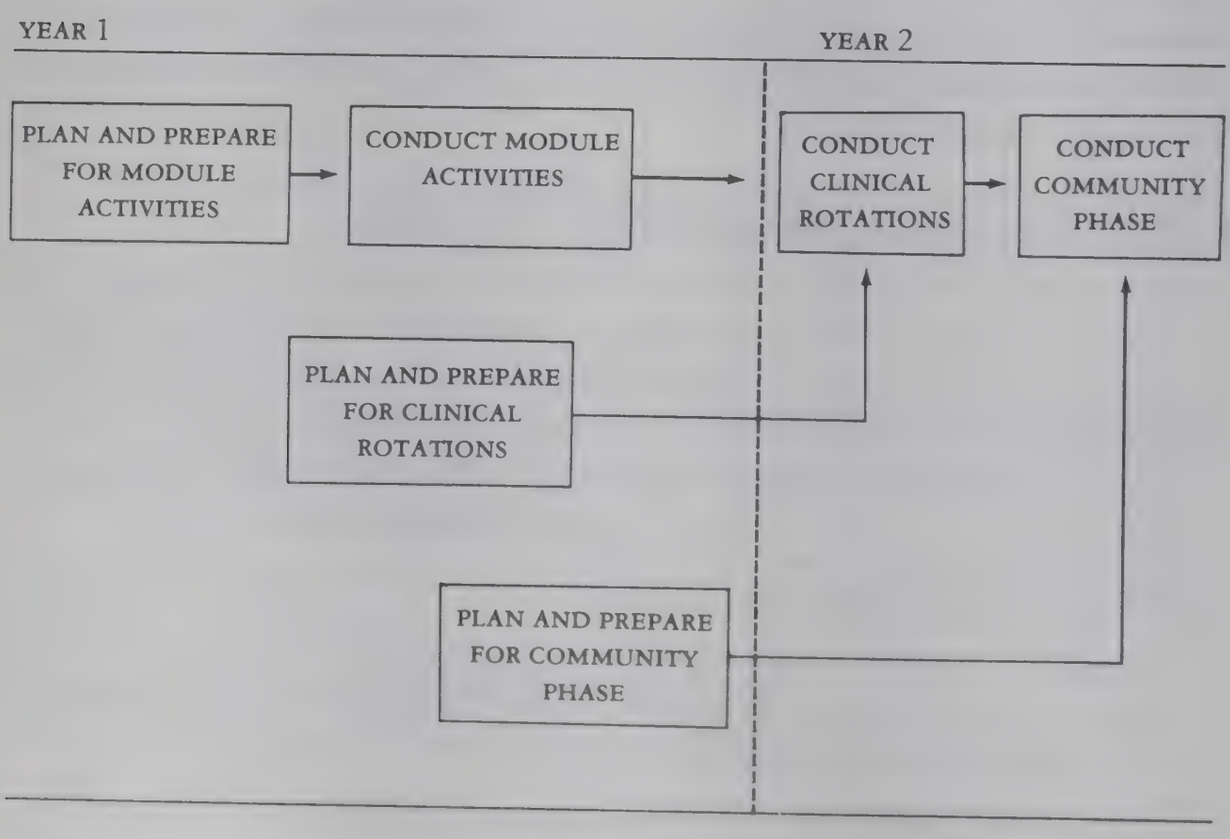
b. Activities associated with the clinical rotations

Decide which speciality clinics the student will rotate through. Decide whether all students do their clinical rotations at the same time or whether you will stagger the rotations. Finalize the clinical rotation schedule. Inform the appropriate facilities by letter or personal visit of when the students will be arriving and of how long they will be staying. Visit all clinical rotation supervisors. Explain the purpose of the rotations and what the students will be expected to accomplish. Describe the evaluation log books and the supervisor's role.

c. Activities associated with the community phase

Visit or write to all the health centers that will be used for student practice during the community phase. Inform them of when the students will arrive and how long they will stay. Arrange for transportation and accommodations for students during the community phase. Refer to Appendix C in this manual for additional information on planning and implementing the community phase activities.

As you are carrying out one set of training activities, you will be planning for the next. The following diagram shows how the overlap occurs.



Monitoring Student Performance

The goal of the training program is to develop competent mid-level health workers. By monitoring student performance continuously throughout the program, the instructors and supervisors can find out how each student is progressing. The instructors and supervisors can explore alternative learning experiences for the students. This process increases the potential for preparing competent workers by the end of the training program.

You, your staff, and the other instructors and supervisors have three roles in the monitoring process. You review and validate the student-held log books. You maintain records on each student for a central file. You are also responsible for counseling the students about their progress toward performance targets.

a. Reviewing student log books

The instructors and supervisors maintain the student-held performance logs. They meet periodically with each student to review the log books and make sure that the student is progressing on schedule.

b. Maintaining student records

The instructors and supervisors also establish and maintain central records to monitor the students' progress during training.

c. Advising students

Finally, the instructors and supervisors counsel and advise the students. The main concern of the instructors and supervisors is the students' academic achievement and job success. At any stage in the training program, you may find students failing academically, lacking interest in the program, or having personal problems which interfere with their success. You and the other instructors can help students solve their problems.

The basic principles in counseling students are:

Let the students know when and where you are available. They need to feel that they are not bothering you. Meet with students in a private, comfortable area.

Recognize each student as a unique individual. Do not judge the students.

Maintain confidentiality so that the students will trust and respect you.

Know your own limitations. It is better to give no advice than to give wrong advice. If you cannot help a student with a specific problem, refer the student to someone else who can help him.

Record information after the session. Taking notes during the session distracts the student and can make him uncomfortable.

Good counseling techniques will help the students make appropriate decisions. The most helpful techniques are:

a. Listening

You cannot learn about a student's problem if you do all the talking. When a student is able to talk about his problems and concerns, the problem often resolves itself.

b. Directing

Direct the conversation by knowing when to listen, when to talk, and what to observe. Directing the conversation sets the topics for discussion and determines the pace of the discussion to keep the focus on the problem. Ask open-ended questions that allow the student to determine the amount and type of information to give.

c. Suggesting

Provide the student with possible solutions to his problem. But allow the student to make his own final decisions.

Your primary responsibility is to counsel students who are having difficulty learning. Tell them about alternative learning opportunities. Or, provide remedial lessons. You can also help students find appropriate solutions for family or financial problems. If necessary, counsel students about their future employment. You may even have to counsel unsuccessful students to consider a more appropriate and satisfying employment goal.

Monitoring Staff Performance

The effectiveness of the training program will depend largely on how well planned and implemented the program is and how well the staff performs. Monitoring staff performance is an essential part of your job. The best way to evaluate the performance of a staff member is to observe him as he is working and to examine the results of his job. The plans that you make for evaluating the staff should be implemented as soon as training starts.

Reporting the Progress of Training

Keep the necessary ministry of health officials and the health community informed about the activities of the training program. Then you increase their understanding about your activities and create a friendly atmosphere. This friendly atmosphere is an important asset as you are trying to gain their help or approval for projects. The more individuals outside of

the training program understand about the program, the more they may be willing to cooperate with you when asked. Implement your scheme for reporting the progress of training as soon as training starts.

ACTIVITY 21

Establishing the Training Program

Follow these steps to establish the training program.

1. List the resources that you will need to carry out the training program. Use the Worksheet for Activity 21 as a guide.
2. Submit a request for needed training resources to the appropriate department.
3. Track the request to make sure that you receive the needed resources in a timely fashion.
4. Obtain the resources.

WORKSHEET FOR ACTIVITY 21

Establishing the Training Program

Use this worksheet to identify training needs. Submit a list of training needs to the appropriate department in the ministry of health.

1. Staff

STAFF MEMBER	NUMBER	PART TIME (YES OR NO)	FULL TIME (YES OR NO)	COMMENTS
Mid-level health worker training staff				
Secretary				
Cleaner				
Driver				
Other				

2. Facilities

TYPE	NUMBER	DESCRIPTION OF HOW MUCH SPACE IS NEEDED AND HOW THE SPACE WILL BE USED
Classrooms		
Student study area		
Storage area		
Office		
Student housing		
Staff housing		
Other		

3. Supplies and Equipment

OFFICE		CLASSROOM		TRAINING	
ITEM	NUMBER	ITEM	NUMBER	ITEM	NUMBER

4. Transportation

TYPE OF VEHICLE	NUMBER	HOW OFTEN VEHICLE WILL BE USED	DESCRIPTION OF USE OF VEHICLE

5. Module Production

COMPONENT	TOTAL NUMBER OF PAGES	NUMBER OF COPIES NEEDED

ACTIVITY 22

Preparing for the Training Program

Follow these steps to prepare for training.

1. Identify and orient the training program staff.
2. Select mid-level health worker students.
3. Develop training program policies for staff and students.
4. Develop a student record keeping system.
5. Develop program and staff evaluation procedures.
6. Develop a way to report on the progress of the training program.
7. Prepare the classrooms and offices.
8. Edit, translate, and reproduce the training materials.

ACTIVITY 23

Conducting the Training Program

Once training begins, there will be many activities that will need to be coordinated. To conduct the training activities associated with the program, follow these steps.

1. Develop a schedule that will help you to identify when you should begin preparation for the different phases of training. Use Section 6 as a guide.
2. Develop a schedule for monitoring student performance. Use the information in the Training Evaluation Manual and Section 7 of this manual to assist you in monitoring student performance.
3. Implement your program for monitoring staff performance.
4. Report the progress of training to the necessary ministry of health officials and the health community.

APPENDIX A

CHECKLIST FOR PLANNING AND CONDUCTING A WORKSHOP

Checklist for Planning and Conducting a Workshop

ACTIVITY	RESPONSIBILITY		
	COMMITTEE	MEMBER	DATE NEEDED
1. PLAN THE WORKSHOP			
a. Draft a general description of the workshop or workshop series, including objectives			
b. Draft a budget for the workshop			
c. Get approval for the workshop			
d. Appoint a workshop planning team			
e. Appoint workshop committees Program Invitations Arrangements Evaluation			
2. DEVELOP THE PROGRAM			
a. Draft a preliminary program			
b. Select a date for the workshop three months in advance, avoiding conflicts with other workshops and major activities			
c. Get approvals for the preliminary program and proposed date			
d. Prepare a manual to be used for the workshop			
e. Reproduce copies of the manual			
f. Give speakers background information, and brief them on what is expected of their presentations			
g. Give background notes for each workshop day to presiding officers, speakers, and resource persons			
h. Organize the small group sessions Choose topics			

ACTIVITY	RESPONSIBILITY		
	COMMITTEE	MEMBER	DATE NEEDED
Choose the type and number of participants Choose discussion leaders, resource persons, and recorders Prepare briefing notes for discussion leaders stressing the outputs desired from each session Prepare worksheets			
i. Reproduce worksheets and other reference materials for the groups			
j. Immediately after the close of the workshop, send thank you letters to presiding officers, speakers, panelists, resource persons, and all other program officials			
3. SEND INVITATIONS a. Compile a list of participants Define criteria for selecting participants Select participants Select presiding officers and moderators Select speakers and group discussion leaders Select resource persons and special guests			
b. Send and follow-up on invitations Send official letters of invitation to speakers and program officials Follow-up with personal contact Send invitations to participants, with workshop objectives and lodging reservations forms enclosed Confirm speakers and presiding officers Send a second invitation to participants with a program summary, arrangements information, and a final reservation form			

ACTIVITY	RESPONSIBILITY		
	COMMITTEE	MEMBER	DATE NEEDED
Brief speakers and presiding officers Send the workshop manual to participants			
4. MAKE GENERAL ARRANGEMENTS a. Select a location for the workshop, considering: Housing Meal services Availability of large and small meeting rooms Services, such as telephone, water, heating, ventilation, toilets, and electricity Recreational facilities, as appropriate Accessibility Proximity to headquarters			
b. Arrange for housing			
c. Arrange for meals and for coffee and tea breaks			
d. Confirm arrangements with the chosen facility in writing			
e. Appoint one person to be in charge of all relations with the facility management			
f. Arrange for meeting rooms, considering: Seating Speakers' table Ventilation and heating Lighting Power sources for visual aids, if needed Loud speaker system, if needed Technician to monitor loud speaker system, if needed			
g. Arrange for and assign staff to a registration table			
h. Arrange for registration sign-up sheets and instructions			
i. Prepare name tags			
j. Prepare packets for participants, containing: Objectives			

ACTIVITY	RESPONSIBILITY		
	COMMITTEE	MEMBER	DATE NEEDED
9. PROVIDE FEEDBACK TO PARTICIPANTS			
a. Read a summary of the prior day's proceedings at the start of each morning's program			
b. Conduct a daily evaluation and report the results of the prior day's evaluation at the start of each morning's program			
c. Distribute handouts as necessary			
d. Obtain approvals of the workshop report and distribute it to all participants as soon as possible after the close of the workshop			
10. MANAGE THE WORKSHOP			
a. Organize workshop files: Daily General Program Invitations Arrangements Evaluation Workshop report			
b. Manage the budget			
c. Arrange for secretarial support			
d. Arrange for technical support			
e. Arrange for clean-up support, if needed			
f. Obtain supplies for the workshop, such as paper, envelopes, pens, pencils, pencil sharpener, clips, and stapler			
g. Arrange press relations, as necessary Appoint one person to be in charge of press relations Prepare a press kit containing the workshop program and objectives, and the speakers' backgrounds			

ACTIVITY	RESPONSIBILITY		
	COMMITTEE	MEMBER	DATE NEEDED
j. Overhead projector			
k. Power source for projectors			
l. Transformers for projectors			
m. Extension cords			
n. Screen			
o. Slides and film			
p. Flipcharts			
q. Wall charts			
r. Displays			
s. Demonstrations			
7. EVALUATE THE WORKSHOP			
a. Design and reproduce evaluation questionnaires			
b. Appoint one or more persons to carry out the evaluation			
c. Draft an evaluation report			
8. WRITE THE WORKSHOP REPORT			
a. Draft the table of contents during the workshop planning stage			
b. Obtain approvals from the workshop planning committee and responsible officials			
c. Assign persons to draft sections of the report			
d. Assign persons to prepare a summary of each day's proceedings			
e. Arrange for responsible officials to review all workshop results and to prepare specific recommendations for action			
f. Assemble all materials			
g. Draft the report			
h. Obtain approvals			
i. Reproduce copies			
j. Distribute copies to participants, program officials, those responsible for follow-up, and others			

ACTIVITY	RESPONSIBILITY		
	COMMITTEE	MEMBER	DATE NEEDED
Program General background information Instructions and notes on arrangements such as transportation, meals, and use of telephone and name tags Pens Writing tablets			
k. Arrange transportation for participants, invited guests, and the planning committee			
l. Prepare daily announcements			
m. Immediately after the close of the workshop, send thank you letters to the management of the facility and to others who helped with supplies, equipment, and arrangements			
5. MAKE ARRANGEMENTS FOR GROUP WORK			
a. Arrange for a small meeting room for each group planned			
b. Arrange for adequate seating			
c. Check ventilation, heating, and lighting			
d. Arrange for visual aids, such as easels, easel paper, felt-tip pens, and masking tape			
e. Obtain copies of worksheets and reference materials			
f. Make signs identifying meeting rooms, as necessary			
6. ARRANGE FOR VISUAL AIDS Select only those needed:			
a. Chalkboards			
b. Chalk			
c. Erasers			
d. Easels			
e. Easel paper			
f. Masking tape			
g. Felt-tip marking pens			
h. Slide projector			
i. Motion picture projector			

ACTIVITY	RESPONSIBILITY		
	COMMITTEE	MEMBER	DATE NEEDED
Notify the media well in advance about who is responsible for press relations Prepare and release an approved advance press release Arrange for press relations during the workshop: Press table, if necessary Contacts and interviews Handouts			
h. Immediately after the close of the workshop, send thank you letters to all members of the planning committee			
11. Other tasks to be added during review and adaptation			

APPENDIX B

COMMUNITY HEALTH WORKER TASK ANALYSIS TABLES

TASK ANALYSIS TABLE

Promoting clean water and a clean environment in the community

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
The CHW will:	The CHW trainee will demonstrate his ability to:	The CHW trainee will demonstrate his knowledge of:
1. Inform and guide community leaders and members on ways to keep water in the community clean	1.1 Identify how water gets dirty during collection, storage, and use	1.1.1 Community practices related to the collection, storage, and use of water
		1.1.2 How water gets dirty during collection, storage, and use
	1.2 Advise community members on how to collect, store, and use water	1.2.1 Proper ways to collect, store, and use water
		1.2.2 How to use community learning materials: Water and Health
	1.3 Identify how water gets dirty at the source	1.3.1 Sources of water in the community
		1.3.2 How water gets dirty at the source from stool, rain water, animals, and rubbish
	1.4 Advise community leaders and members how to protect water at the source	1.4.1 How to protect the source of water

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
2. Inform and guide community leaders and members on ways to keep the community clean	2.1 Encourage community members to build, maintain, and use latrines	1.4.2 Resource people who can help the community 2.1.1 How to build latrines 2.1.2 How to use community learning materials: The Lady Who Built a Tower
	2.2 Encourage community members to build, maintain, and use compost pits and rubbish pits	2.2.1 How to build compost pits and rubbish pits 2.2.2 Resource people who can help the community
	2.3 Help the community control flies	2.3.1 Breeding places in the community for flies 2.3.2 How to control flies by reducing breeding places 2.3.3 The importance of covering food

TASK ANALYSIS TABLE

Helping women in the community have healthy pregnancies

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
The CHW will:	The CHW trainee will demonstrate his ability to:	The CHW trainee will demonstrate his knowledge of:
1. Help women in the community have healthy pregnancies	1.1 Advise pregnant women about nutrition needs	1.1.1 Nutrition needs of pregnant women
	1.2 Advise women how to take care of themselves during pregnancy to prevent problems	1.2.1 Care for pregnant women 1.2.2 Importance of regular check-ups during pregnancy
	1.3 Identify and refer pregnant women with serious problems	1.3.1 Signs of serious problems during pregnancy
2. Help pregnant women prepare for having a baby	2.1 Advise pregnant women on how to prepare for delivery	2.1.1 Preparations and supplies for delivery 2.1.2 Signs of birth
	2.2 Identify and refer pregnant women who may be in danger at the time of delivery	2.2.1 Signs that pregnant women may be in danger at the time of delivery
3. Encourage healthy practices at the time of delivery	3.1 Share information about healthy practices during delivery with village midwives and older women involved in delivering babies	3.1.1 Healthy delivery practices 3.1.2 How to use community learning materials: Mateboho Has a Baby

TASK ANALYSIS TABLE

Preventing and caring for diarrhea in the community

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
The CHW will:	The CHW trainee will demonstrate his ability to:	The CHW trainee will demonstrate his knowledge of:
1. Prevent diarrhea in the community	1.1 Identify causes of diarrhea in the community	1.1.1 Community practices that may cause diarrhea
	1.2 Encourage good practices to prevent diarrhea	1.2.1 Personal hygiene and clean food preparation
		1.2.2 How to use community learning materials: Diarrhea Cycle of Health cards
2. Care for children in the community with diarrhea	2.1 Advise parents to give water and fluids to children with diarrhea	2.1.1 Care for children with diarrhea
	2.2 Demonstrate how to prepare the special drink for preventing dehydration	2.2.1 How to prepare the special drink for preventing dehydration
		2.2.2 When and how to give the special drink for preventing dehydration
	2.3 Identify and refer seriously ill children	2.3.1 When and how to refer seriously ill children

TASK ANALYSIS TABLE

Preventing the spread of tuberculosis and leprosy in the community and identifying, referring, and following up people with these illnesses

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
The CHW will:	The CHW trainee will demonstrate his ability to:	The CHW trainee will demonstrate his knowledge of:
1. Prevent the spread of tuberculosis in the community	1.1 Encourage a good diet	1.1.1 Good diet
	1.2 Identify and refer people with signs of tuberculosis to the health center	1.2.1 Signs of tuberculosis 1.2.2 When and how to refer people with signs of tuberculosis
	1.3 Advise people with a cough to cough down and to spit into a container	1.3.1 How tuberculosis spreads 1.3.2 How to burn or clean a container of spit
	1.4 Encourage good ventilation	1.4.1 Importance of air and light in the home
	1.5 Advise parents to take babies and other children for special injections at the health center	1.5.1 Importance of the special injection for tuberculosis
2. Identify, refer, and follow-up people with tuberculosis	2.1 Identify people with tuberculosis	2.1.1 Signs of tuberculosis
	2.2 Refer people with tuberculosis to the health center	2.2.1 When and how to refer people with tuberculosis

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
	2.3 Follow-up people with tuberculosis when they return from the health center	2.3.1 Health center reports and the Patient Card
	2.4 Make sure people with tuberculosis take their medicines regularly	2.4.1 Care of people with tuberculosis
	2.5 Encourage all family members of people with tuberculosis to go to the health center	
3. Prevent the spread of leprosy in the community	3.1 Identify and refer people with signs of leprosy	3.1.1 Signs of leprosy
4. Identify, refer, and follow-up people with leprosy	4.1 Follow-up people with leprosy	4.1.1 Home care of people with leprosy
	4.2 Make sure people with leprosy take their medicines regularly	4.2.1 How to use community learning materials: The Story of Grandmother Mamosa

TASK ANALYSIS TABLE

Helping parents properly feed and care for their children

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
The CHW will:	The CHW trainee will demonstrate his ability to:	The CHW trainee will demonstrate his knowledge of:
1. Encourage pregnant women to take care of themselves	1.1 Advise pregnant women about their nutrition needs	1.1.1 Nutrition needs of pregnant women
	1.2 Advise pregnant women to see a health worker regularly	1.2.1 Care for pregnant women
		1.2.2 The importance of regular check-ups during pregnancy
2. Encourage women to breast-feed their babies	2.1 Share information with women to help them prepare to breast-feed their babies	2.1.1 How to care for the breasts
		2.1.2 The importance of a good diet for breast-feeding mothers
3. Share information with parents on feeding and caring for young children	3.1 Share information with parents on nutrition needs of young children	3.1.1 Nutrition needs of young children at different ages
	3.2 Visit homes to see if children are growing properly	
	3.3 Demonstrate how to prepare nutritious meals for young children	3.3.1 How to prepare nutritious meals
	3.4 Encourage parents to get their children immunized	3.4.1 When children need immunizations

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
4. Prevent and care for undernutrition in the community	4.1 Identify and refer undernourished children	4.1.1 Signs of undernutrition 4.1.2 How to read growth charts 4.1.3 When and how to refer undernourished children
	4.2 Help parents care for undernourished children	4.2.1 How to care for undernourished children

TASK ANALYSIS TABLE

Preventing and caring for some common health problems in the community

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
The CHW will:	The CHW trainee will demonstrate his ability to:	The CHW trainee will demonstrate his knowledge of:
1. Promote healthy practices to prevent common health problems in the community	1.1 Promote good nutrition	1.1.1 Nutrition needs of adults and older children
	1.2 Promote good hygiene	1.2.1 Importance of bathing, washing hands, washing hair, and cleaning teeth
	1.3 Promote cleanliness of homes	1.3.1 Importance of clean homes and surroundings
2. Prevent and care for people with scabies	2.1 Promote good personal hygiene	2.1.1 Importance of care of the body, clean clothes, and clean homes in preventing scabies
	2.2 Provide care for people with scabies	2.2.1 How to care for people with scabies
		2.2.2 Importance of treating the whole family of a person with scabies
		2.2.3 Importance of washing and sun drying clothes and bedding

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
3. Prevent and care for people with red eye	3.1 Promote good care of the eyes	3.1.1 Importance of keeping the eyes clean
	3.2 Provide care for people with red eye and refer when necessary	3.2.1 How to care for people with red eye and when to refer
4. Prevent and care for people with fever	4.1 Provide care for people with fever and refer when necessary	4.1.1 How to care for people with fever and when to refer
5. Prevent and care for people with headaches, belly pains, and pains in the joints	5.1 Provide care for people with headaches, belly pains, and pains in the joints, and refer when necessary	5.1.1 How to care for people with headaches and when to refer 5.1.2 How to care for people with belly pains and when to refer 5.1.3 How to care for people with pains in the joints and when to refer

TASK ANALYSIS TABLE

Preventing and caring for minor injuries and accidents in the community

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
The CHW will:	The CHW trainee will demonstrate his ability to:	The CHW trainee will demonstrate his knowledge of:
1. Promote practices to prevent accidents and injuries in the community	1.1 Share information on how to make homes safe from accidents	1.1.1 How to make homes safe from accidents
	1.2 Share information with parents and children to prevent accidents	1.2.1 How to use roads and highways safely
		1.2.2 How to play safely
2. Provide care for people who have these problems: Cuts and wounds Burns Poisonings Illnesses caused by heat Choking Shock Broken bones	2.1 Help and care for a person who is bleeding from a cut or wound and refer when necessary	2.1.1 How to help a person who is bleeding from a cut or wound and how and when to refer
	2.2 Help and care for a person with minor burns and refer when necessary	2.2.1 How to care for a person with minor burns and how and when to refer
	2.3 Help and care for a person who has taken poison and refer when necessary	2.3.1 How to care for a person who has taken poison and how and when to refer
	2.4 Help and care for a person with an illness caused by heat and refer when necessary	2.4.1 How to care for a person with an illness caused by heat and how and when to refer

Work Requirements	Training Requirements	
DUTIES	*SKILLS*	*KNOWLEDGE*
	2.5 Help and care for a person who is choking and refer when necessary	2.5.1 How to care for a person who is choking and how and when to refer
	2.6 Give mouth-to-mouth breathing to a person who has stopped breathing	2.6.1 How to give mouth-to-mouth breathing
	2.7 Help and care for a person in shock and refer properly	2.7.1 How to care for a person in shock and how and when to refer
	2.8 Help and care for a person with a broken bone and refer properly	2.8.1 How to care for a person with a broken bone and how and when to refer

APPENDIX C

COMMUNITY PHASE ORIENTATION PROGRAM

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PROGRAM MANAGER'S INTRODUCTION

The mid-level health worker training program includes a module phase, a clinical rotation, and a community phase. The module phase takes place in a classroom; the clinical rotation takes place in a hospital ward, outpatient clinic, or health center; and the community phase takes place in health centers and in the communities served by those health centers. This suggested Community Phase Orientation Program addresses only the community phase of the training program.

A successful community phase of a mid-level health worker training program depends on cooperation among supervisors, training staff, and students. Each person must know what to expect and what will be expected of him. Many activities must be carried out and many requirements must be fulfilled without disrupting the normal operation of the health center or the work of the health center team. This Community Phase Orientation Program provides the training program manager with suggested activities and materials to share with all community phase participants. These must be adapted along with other training materials to meet your specific needs.

Begin assigning responsibility for planning and organizing this orientation program at least six months before the community phase of training begins. Use the Checklist for Planning and Conducting a Workshop as a model for your planning. See Appendix A.

SCHEDULE

DAY 1	8:30 AM	Registration
	9:00	Opening Ceremony
	9:15	Welcome to Supervisors and Training Staff
	9:45	Session 1: Mid-Level Health Worker Training
	10:30	Tea
	11:00	Session 2: Student Requirements for the Community Phase
	11:45	Session 3: Health Center Assignments
	12:30 PM	Lunch
	1:30	Session 4: Role of the Health Center Supervisor

	2:00	Session 5: Supervision
	2:30	Session 6: Planning the Community Phase Activities
	3:00	Tea
	3:30	Session 7: Team Building
	4:30	Summary of the Day's Activities
DAY 2	9:00 AM	Announcements
	9:15	Session 8: Motivation
	10:30	Tea
	11:00	Session 9: Evaluation
	12:00 PM	Lunch
	1:00	Session 10: Training
	2:00	Session 11: Management of Support Systems and the Health Center
	3:00	Tea
	3:30	Session 12: Handling Conflicts
	4:30	Session 13: Summary of Supervision for Students
DAY 3	9:00 AM	Welcome to Students, Supervisors, and Training Staff
	9:15	Session 14: Description of the Community Phase
	9:30	Session 15: Report on Previous Two Days' Activities
	10:30	Tea
	11:00	Session 16: Community Phase Requirements, Schedule, and Health Center Assignments
	12:00 PM	Lunch
	1:00	Session 17: Using the Community Phase Log
	2:00	Session 18: Developing the Community Phase Schedule
	3:30	Tea
	4:00	Summary of the Day's Activities
DAY 4	9:00 AM	Session 19: Team Building
	10:30	Tea
	11:00	Session 20: Health Center Resources
	12:30 PM	Lunch
	1:30	Session 21: Using References
	2:30	Closing Comments

Part I

Supervisors and Training Staff

PROGRAM MANAGER'S NOTE:

Reproduce one copy of Part I for each supervisor and member of the training staff.

Welcome to Supervisors and Training Staff

Welcome, colleagues in health care. Thank you for joining us in what will be a four-day orientation program to prepare supervisors, training staff, and students for the third part of the mid-level health worker training program. This third part of the training program will take students out of the classroom and send them into rural communities where they will begin to take on the responsibilities of a mid-level health worker.

The mid-level health worker training program began not in a classroom, but in the ministry of health where our commitment to primary health care was first made. Since that commitment, we have adapted a training curriculum to suit our country's specific needs. We have also introduced health care professionals to this training program's aims and techniques. They have followed our students through classroom study, discussion, and role-play, and supervised them in clinics. Now, with your help, the community phase of the training program is soon to begin.

Your assistance in this third phase of the mid-level health workers' training is essential to our program's success. Here, for the first time, students combine all the knowledge and skills they have learned. They will be supervised by you, and you will continue their training by sharing with them your experiences, your guidance, and your advice.

This program will give you details about your role in this community phase of training so you will know what to expect and what will be expected of you.

This program also describes what the mid-level health worker students learn and accomplish during their community phase. It reviews the techniques of supervision, and it provides a time to share concerns and expectations with the students and training staff.

At the end of this program, you should be able to:

- Describe the training program for mid-level health workers
- Define the requirements of the community phase
- Describe the characteristics of health centers where students will work during the community phase
- Discuss the roles and responsibilities of the health center supervisors, training staff, and students
- Discuss and use the Community Phase Log
- Use supervisory techniques
- Suggest a schedule that students might follow during the first week of the community phase
- Describe the Community Health manual, Formulary, Health Center Operations manual, Diagnostic and Patient Care Guides, and Patient Care Procedures

Session 1

Mid-Level Health Worker Training

OBJECTIVES

1. Review the purpose of the module phase of the mid-level health worker training program.
2. Review the topics of study covered during the module phase of the mid-level health worker training program.

The mid-level health workers trained in this program will join district health teams to provide and coordinate preventive, promotive, and curative health services in the health center and in the service area surrounding the health center. The mid-level health worker will lead a health center team as part of his work. He will provide support, guidance, and continuing education for team members and for community health workers. He will diagnose and treat problems that he has been trained to handle, and refer other problems to a district hospital. He will be responsible for providing drugs, supplies, and transportation for his health team. He will also coordinate ministry of health programs in his area. While working with his health team, the mid-level health worker will help communities assess their health needs, and plan and carry out programs to meet those needs.

This training program is designed to help students learn the skills and knowledge directly related to the job of a mid-level health worker. This is competency-based training. The program lasts fifteen months, divided into an eleven-month module phase and a four-month community phase.

Module Phase

During the module phase of training, students learned the knowledge and skills presented in the student texts and activities designed specifically for this competency-based program. The modules fall under five categories:

Community health
Basic clinical knowledge and skills
General clinical
Maternal and child health
Health center management

By completing the module phase of his training, the student has shown himself able to:

- Interview patients to obtain a medical history
- Perform a physical examination
- Use medical history and physical examination information to diagnose a patient's problem
- Treat and care for patients with common medical problems
- Recognize when to refer patients to a hospital for treatment and how to transfer them there, if necessary
- Advise patients about caring for health problems and preventing them
- Advise a patient's family and his community about protecting and improving health

Review the list of modules and the topics that are covered in each one.

Community Phase

The community phase of training will allow students to apply the knowledge and skills they learned in the module phase. The community phase may be the most important part of the students' training. During this phase, they will further integrate all that they have learned, and practice the role for which they have been trained.

In addition, students will return to the classroom for two weeks during the community phase of training. Among their activities during that time, they will study Training and Supporting Community Health Workers. Topics in this module include: the role of the community in primary health care, the role of community health workers, helping a community select a community health worker, the learning process for community health workers, organizing a training program for community health workers, and supporting community health workers.

In planning community phase activities, the training staff has:

- Defined the purpose of the community phase
- Defined the requirements of the community phase
- Developed a schedule for community phase activities
- Selected health centers to be used
- Selected you as health center supervisors
- Defined the roles and responsibilities for you, themselves, and the students
- Developed evaluation tools for you to use to evaluate the students' performance
- Developed suggested techniques for you to use to increase your supervisory skills

Not all of the decisions have been made about how the community phase should proceed. The training staff has been waiting to involve you in the process. You will spend much of this program commenting and making suggestions on how to make the community phase as appropriate as possible.

Purpose of the Community Phase

The community phase will provide students with supervised practice in:

Identifying common environmental health, nutritional, and maternal and child health problems, and working with a community to carry out activities to prevent these problems

Diagnosing and managing patients with common clinical, emergency, and maternal and child health problems, and helping patients prevent such problems

Providing patient, family, and community education

Managing a health center by maintaining and controlling its drugs and medical supplies, general supplies, facilities and equipment, transportation, communication, personnel, finance, and health information systems

Selecting, training, and supervising community health workers

Students will practice these skills in rural health centers and communities like those in which they will work as mid-level health workers. This is why your rural health centers were chosen.

The students will only practice with supervision during the community phase. They are not yet ready to assume independent responsibility for carrying out all of the activities of a health center. Students need supervision. You were chosen as a health center supervisor to help students meet the requirements of the community phase.

ACTIVITIES

PROGRAM MANAGER'S NOTE

Select a representative of the training staff to prepare a discussion of the module phase of training. He may want to display copies of all the modules used. Also, he may need a flipchart or chalkboard for his talk.

1. The training staff will lead a discussion about the module phase of training and answer any questions.
2. The training staff will lead a discussion about the purpose of the community phase of training and answer any questions.

Training Modules and Topics

PROGRAM MANAGER'S NOTE

Review this list of training modules and topics with the training staff before you use it in an orientation program. The modules and their topics are subject to change, depending on your area's specific needs. Adapt this list to reflect the adapted materials used in your training program.

Community Health Modules

Identifying the Preventive Health Needs of the Community

In Identifying the Preventive Health Needs of the Community, students learned how to assess environmental, nutritional, child care, prenatal care, postnatal care, and child spacing needs. They learned how to conduct a community health survey, set priorities for health activities, and make community action plans. Students also learned to be sensitive to the cultural and social background of people in the community and how to use the basic principles of teaching to help them prevent health problems and to promote good health habits.

Meeting the Preventive Health Needs of the Community

Meeting the Preventive Health Needs of the Community prepared the students to assist a community in planning and carrying out health activities. The students learned how to work with community members to start an activity, follow its progress, and evaluate its results.

Basic Clinical Knowledge and Skills Modules

Anatomy and Physiology

Anatomy and Physiology provided students with the elementary information required to take a basic medical history and perform a physical examination. Students learned about the basic disease processes described in the clinical modules. They learned to describe the organization of the body and the basic physiological functions of the body. They learned to identify and locate the general anatomical regions of the body, and they learned the organ systems contained in each anatomical region.

Medical History

Students learned how to take and record a medical history in Medical History. They also learned interviewing skills that will enable them to obtain information about a patient's health, his health history, his family's history, his nutrition, and his health habits.

Physical Examination

Students learned how to perform a physical examination and record their findings in Physical Examination. They studied signs of problems,

steps for performing a physical examination, methods of examination, equipment for performing a physical examination, and how to prepare a patient for a physical examination.

General Clinical Modules

Respiratory and Heart

- Pneumonia
- Acute bronchitis
- Chronic bronchitis and emphysema
- Bronchial asthma
- Pleural effusion
- Tuberculosis
- Congestive heart failure
- Rheumatic heart disease
- Angina pectoris
- Myocardial infarction
- Hypertension

Gastrointestinal

- Amebiasis
- Giardiasis
- Peptic ulcer
- Gastroenteritis
- Roundworms
- Pinworms
- Tapeworms
- Hookworms
- Viral hepatitis
- Cirrhosis
- Acute abdomen
- Acute appendicitis
- Intestinal block
- Hemorrhoids
- Anal fissures

Genitourinary

- Urinary tract infection
- Stones in the urinary tract
- Nephritis
- Nephrotic syndrome
- Enlarged prostate gland
- Prostatitis
- Scrotal swelling
- Gonorrhea
- Syphilis

Skin

- Impetigo
- Scabies
- Lice
- Ringworm
- Tinea versicolor
- Cellulitis
- Boils and abscesses
- Tropical ulcers
- Herpes simplex
- Eczema
- Onchocerciasis
- Contact dermatitis
- Skin reactions to drugs

Dental, Eyes, Ears, Nose, and Throat

- Sty
- Conjunctivitis
- Trachoma
- Cataracts
- Vitamin A deficiency
- Foreign body in the eye
- Cuts and ulcers in the cornea
- Eye emergencies
- Canker sores
- Gingivitis
- Acute ulcerative gingivitis
- Tooth decay
- Dental abscess
- Acute upper respiratory infection
- Acute otitis media
- Chronic otitis media
- Mastoiditis
- External otitis
- Wax in the ears
- Acute sinusitis
- Acute bacterial tonsillitis
- Foreign body in the ears, nose, and throat
- Nosebleeds

Infectious Diseases

- Typhoid fever
- Tetanus in children and adults
- Rabies
- Malaria
- Louse-borne typhus
- Meningitis
- Diphtheria
- Leprosy

Other Common Problems

- Low back pain caused by muscle strain or sprain of the sacroiliac joint
- Low back pain caused by disk disease
- Osteoarthritis
- Rheumatoid arthritis
- Septic arthritis
- Simple goiter
- Hypothyroidism
- Hyperthyroidism
- Headache
- Stroke
- Grand mal epilepsy
- Petit mal epilepsy
- Anemia
- Cancer
- Diabetes mellitus
- Acute confusion
- Anxiety
- Depression
- Acute alcohol intoxication
- Chronic alcoholism

Trauma and Emergency

- Shock
- Unconsciousness
- Blocked airway
- Acute respiratory failure
- Snake bite
- Poisoning
- Bleeding
- Lacerations
- Fractures
- Sprains
- Dislocations
- First degree burns
- Second degree burns
- Third degree burns
- Trauma to the eye
- Trauma to the head
- Trauma to the spinal column
- Trauma to the chest
- Trauma to the abdomen

Maternal and Child Health Modules

Prenatal Care

Prenatal Care prepared students for the treatment and care of the pregnant woman who is experiencing the common conditions that occur during pregnancy. Students also learned to recognize risk factors in a pregnant woman and to provide treatment or refer her, as appropriate. Problems considered were:

Severe anemia
Diabetes
Heart disease
Ectopic pregnancy
Septic abortion
Preeclampsia and eclampsia
Fetal death
Bleeding early in pregnancy
Bleeding late in pregnancy
Malaria
Sickle cell disease

Labor and Delivery

Labor and Delivery prepared students to assist in the normal delivery of a child and to care for or refer mothers experiencing any of the following complications:

Fetal distress
Maternal distress
Urine in the bladder
Premature labor
Incomplete fetal rotation
Small or abnormally shaped pelvis
Early rupture of the bag of waters
Retained placenta
Prolonged labor
Breathing problems of a newborn
Face-up presentation
Face presentation
Breech presentation
Transverse presentation
Multiple pregnancy
Prolapse of the cord
Rupture of the uterus
Preeclampsia or eclampsia
Bleeding
Postpartum bleeding
Emergencies in a newborn

Postnatal Care

Postnatal Care prepared students to provide care for normal postnatal mothers and infants and to treat or refer patients with the following common postnatal problems:

Swollen breasts
Lack of breast milk
Hemorrhoids
Cracks on nipples
Breast abscess
Puerperal sepsis
Unrepaired perineal tears
Mother with a dead baby
Cradle cap
Diaper rash
Colds
Simple jaundice
Simple swelling of the scalp
Bleeding into the scalp
Fractures
Diarrhea
Fever
Low birth weight
Jaundice
A newborn without a mother

Problems of Women

Pelvic inflammatory disease
Non-specific vaginitis
Trichomonal vaginitis
Monilial vaginitis
Cancer of the uterus or cervix
Fibroid tumor in the uterus
Tumor of the ovary
Breast lumps
Menstrual cramps
Side effects of contraceptives
Menopause
Atrophic vaginitis

Diseases of Infants and Children

- Malnutrition
- Diarrhea and dehydration
- Tetanus of the newborn
- Septicemia in the newborn
- Gonococcal conjunctivitis of the newborn
- Thrush in the newborn
- Croup
- Whooping cough
- Measles
- Mumps
- Chicken pox
- Poliomyelitis
- Rheumatic fever
- Sickle cell anemia
- Osteomyelitis

Child Spacing

The Child Spacing module prepared students to counsel individuals or couples about child spacing methods, the advantages and disadvantages of those methods, and the common side effects and complications associated with them. In addition, the students learned the clinical skills they will need to assist individuals or couples seeking child spacing methods. The module also prepared students to counsel individuals and couples who want to have children but cannot.

Health Center Management Modules

Working with the Health Team

In Working with the Health Team, the health team refers to the mid-level health worker, those with whom he works in the health center, and the community health workers. Students studied these topics: working with a team, health teams, managing a health center, supervising a health center, team problem-solving, team work plans and schedules, and evaluating program and team performance.

Working with Support Systems

In Working with Support Systems, the main management component of the mid-level health worker training program, students learned to manage the resources normally available at a health center. These resources are divided into eight support systems: drugs and medical supplies, general supplies, facilities and equipment maintenance, transportation, communication, personnel, finance, and health information. In addition, students studied the organization and general operation of a health center. This module also prepared students to obtain, maintain, and control the resources they will need as mid-level health workers.

Session 2

Student Requirements for the Community Phase

OBJECTIVE

Review the student requirements for the community phase of the mid-level health worker training program.

Students in the mid-level health worker training program will be expected to carry out these management, community health, general clinical, and maternal and child health activities during the community phase of their training. See the Community Phase Log for a detailed list of these requirements.

ACTIVITY

PROGRAM MANAGER'S NOTES

Select a member of the training staff to prepare a review and explanation of the community phase requirements.

Reproduce copies of the Community Phase Log for distribution. The log will be used for this review and for an explanation of the evaluation process in Session 9.

Supply a chalkboard or flipchart for the training staff representative's discussion.

The training staff will lead a discussion about the community phase requirements and answer any questions.

Session 3

Health Center Assignments

OBJECTIVE

Announce and review health center assignments for the community phase of the mid-level health worker training program.

Look at the list of health center assignments. Find your name in the column under Health Center Supervisor or Training Staff Representative. Note the students and health centers for which you will be responsible. Also, note who among the training staff or supervisors you will work with during the community phase.

At their assigned rural health centers, students will need to use all their newly acquired knowledge and skills in handling situations which they might later encounter as mid-level health workers. For example, students will have to budget their time, set priorities, work with a community, train and support community health workers, and maintain the health center and its support systems. Through training at a health center under your supervision, the students should be able to carry out all the activities of a mid-level health worker.

Your facility was chosen for three reasons. First, it will enable the students to practice all the skills they have learned during the module phase. Second, your health center is like facilities the students will use at the end of their training. And third, your facility is close enough to a district hospital to allow frequent supervision.

ACTIVITY

The training staff will lead a discussion about the health center assignments and answer any questions.

Community Phase Assignments

PROGRAM MANAGER'S NOTE

When the assignments have been made, fill in the appropriate spaces on this sheet.

	HEALTH CENTER TRAINING STAFF		
STUDENT	HEALTH CENTER	SUPERVISOR	REPRESENTATIVE

Session 4

Role of the Health Center Supervisor

OBJECTIVE

Introduce the role and responsibilities of a health center supervisor who takes part in the community phase of the mid-level health worker training program.

A student has been assigned to the health center that you supervise. That student will stay at your health center for the entire community phase. He will report to you, his supervisor. The training staff will assist you with some of your supervisory responsibilities.

As a health center supervisor, you will serve as a role model, trainer, evaluator, and advisor. Your position will be influential. A student's success may be affected by his experience with you. Your responsibilities will include:

Coordinating supervisory responsibilities with the training staff
Helping to build team relationships among the students, the training staff, and yourself
Making supervisory visits to the students as often as you and the training staff agree are necessary
Helping the student complete his community phase requirements
Evaluating the student's performance, using the provided tools
Developing an appropriate weekly and monthly schedule with the student and the health center staff
Providing on-the-job training

These responsibilities will be discussed in greater detail throughout this orientation program.

ACTIVITY

The training staff will discuss the roles and responsibilities of health center supervisors and answer any questions.

Session 5

Supervision

OBJECTIVE

Explain supervision as a necessary part of the community phase of the mid-level health worker training program.

For community phase work, supervision means helping students achieve their goals and using resources to challenge and interest students in performing and completing needed tasks. Supervision, in this case, is directed toward helping the student learn skills that he will need as a competent mid-level health worker. The best use of resources provides the greatest challenge to a supervisor. The supervisor must decide how to use available resources to challenge and interest students in performing and completing their required tasks. This challenge is the reason we are here. In this program, we will plan and discuss how to answer this challenge.

As a supervisor, you will need knowledge and skills in:

Planning activities
Motivating students
Evaluating students' activities
Developing team relationships
Assisting with students' training needs
Managing support systems
Handling complaints

ACTIVITY

Discuss the supervision of mid-level health workers who are in the community phase of their training.

Session 6

Planning the Community Phase Activities

OBJECTIVES

1. Schedule activities for the students' first week at a community health center during the community phase of the mid-level health worker training program.
2. Determine the extent of supervision possible for each student, and plan supervisory activities.

To develop a plan for supervising students, you must first be able to answer these questions:

What activities must the students complete?
Why must the students complete their activities?
Where should students complete their activities?
How should students complete their activities?
Who will supervise students when they undertake their activities?

The training staff has already completed some of the community phase planning. For example, the staff has planned activities for the community phase, reviewed the requirements, and assigned students to rural health centers. The training staff now needs your help in planning an agenda that will allow students to complete the requirements within the given time. The staff also needs your assistance in deciding who will supervise specific activities.

First, we will deal with planning the activities. We must develop a community phase schedule for the first week that the students are at the health center.

ACTIVITIES

1. Schedule activities for the students' first week at a community health center. This exercise will give you an idea of what students will need to accomplish during the community phase of their training and how you can help them. The exercise will raise many questions about the students' schedules. When you later meet with the students, you will discuss the first week's activities with them. Then you and the students can finalize the schedule of the first week's activities.
   a. Review the students' community phase requirements.
   b. Using the Community Phase Assignments list, note which member of the training staff will work with you. Join him in a small group with other supervisors.

c. With your group, decide how many days of the first week the students will spend at the health center and how many days they will spend in the community. You need only to decide how many days to allow for each type of activity.

d. Rejoin the main group, and with that group agree on how many days of the first week the students will spend in the health center and how many days they will spend in a community.

e. When you know how many days to allow for each set of activities, meet again with your training staff representative. Review the students' requirements. Decide which activities students should start during the first week of their community phase. List these, using the Sample List of Community Phase Activities.

2. Develop a supervisory schedule. Frequent supervision is important because students are not ready to work completely on their own. Ideally, they should have daily supervision. If daily supervision is not possible, then you must decide how often the students can be supervised and how the health center staff and the training staff can cooperate to provide as much supervision as possible.

   a. With all the supervisors and training staff, decide how much supervision supervisors will be able to provide. If the group decides that daily supervision is necessary and possible, then go on to step B. If the group decides that daily supervision is not possible, skip step B and go on to step C.

   b. If daily supervision is necessary and possible, and if health center supervisors will be able to see students every day, follow these instructions:

      Join a group led by the training staff representative with whom you will work

      In your group, determine the daily activities of a health center supervisor. For example, the supervisor might observe and assist the student in daily activities and give the student daily feedback about his performance

      Decide how often your training staff representative will visit the student at the health center, and how often the training staff representative will meet with you

      Review with your training staff representative the forms he will use when he visits the student mid-level health worker at the health center and when he visits you to discuss the student's work. The training staff representative will only use these forms for his first visit. Thereafter, he will use a checklist prepared with your help and based on the student's schedule of activities

   c. If the program group decided that daily supervision is not possible, the health center supervisors and training staff must cooperate to provide students with adequate supervision. Follow these instructions:

      ·ogram group, decide how often the health center
      ·l the training staff should visit the health center

Join in a group led by the training staff representative with whom you will work

Discuss what the health center supervisor and the training staff representative should do at each supervisory visit. Review the list of suggested supervisory activities

Decide how often the health center supervisor and the training staff representative will meet to discuss the progress of the student.

Schedule the first meeting

SAMPLE LIST OF COMMUNITY PHASE ACTIVITIES

Week 1

After one week, each student will have accomplished these management, community health, clinical, and maternal and child health activities.

1. The student will have met all the health team members.
2. The student will have conducted a meeting with health team members to discuss:

   Responsibilities of each worker, the schedule of activities, and the physical layout of the health center

   The purpose, requirements, and activities of the students' community phase of training and how these activities will affect the other health workers

   A schedule of the first five weeks' activities
3. The student will have developed a work plan for health center activities.
4. The student will have developed schedules of work activities for each health team worker and for health center activities. The health center activities schedule may be posted for community information.
5. The student will have managed the drugs and medical supplies and general supplies support systems by taking an inventory and ordering needed supplies.
6. The student will have met with community leaders to discuss the community's health status and possible community activities to improve its health status.
7. The student will also have scheduled time for clinical and maternal and child health activities at the health center.

GUIDE FOR HEALTH CENTER VISITS

Date _____ Supervisor _____
Student _____ Health Center _____
Person Making Visit _____

Community Information

1. Location of the health center:

2. Characteristics of the health center district:

3. Names of villages, towns, or cities that the student has visited or plans to visit:

4. Types of work performed in the health center district:

5. Types of community-based operations:

6. Types and numbers of traditional practitioners:

7. Number of schools in the area:

8. After examining the Community Phase Log, note any problems the student is having and whether he is completing his requirements.

Management Information

1. Write the names and titles of health center workers and briefly describe the work they do.

2. How is the health center team functioning? Are any problems apparent?

3. What is the student's daily, weekly, and monthly schedule?

4. What is the health center structure and what condition is it in?

5. What equipment is available to the student? Is it adequate? Is it well maintained?

6. What means of transportation does the student have? Is it adequate?

7. How does the student communicate with the supervisor or hospital in case of an emergency? Does he have a radio?

8. After examining the Community Phase Log, note whether the student is completing his requirements.

Clinical Information

1. How many patients does the student see each day?

2. How many cases does the student refer?

3. How many deliveries does the student do in a week?

4. What hours does the student see patients?

5. What types of patients does the student see?

6. What is your impression of the entries the student makes on patient-held cards?

7. What is your evaluation of the student's skills in:

   Taking a medical history

   Performing a physical examination

   Making a diagnosis

Managing the health center

8. What is your evaluation of the student's skill in performing patient care procedures?

9. Is the student completing requirements listed in the Community Phase Log? Is he having any problems?

General Information

1. How are the student and the supervisor getting along?

2. How are the student and the training staff getting along?

3. Is the student having any problems with accommodations or food?

4. General comments and considerations:

GUIDE FOR VISITS WITH SUPERVISORS

Supervisor's Name _____ Name of Facility _____
Student _____

Questions to Ask the Supervisor

1. How often have you been visiting the student?

2. How do you think the student is performing?

   Health center management skills

   Patient management skills

   Community assessment and intervention skills

   Working with community health workers skills

   Overall

3. Are you using the Community Phase Checklist in the Community Phase Log and references in assessing the student's performance?

4. How well does the student work with you?

5. How well does the student work with the health center staff?

6. How well do you and the training staff work together?

7. Have you applied what you learned at the Community Phase Orientation Program?

SAMPLE LIST OF SUPERVISORY ACTIVITIES

Visit to a Health Center

Supervisors and training staff representatives visiting a health center should go prepared with a plan of activities. Your plan might look like this sample.

1. Ask the student whether he is having any problems. Help him deal with any problems he is having.
2. Review the previous week's activities. Find out what was accomplished. Note any problems. Discuss how to improve scheduling for the next week.
3. Discuss the past week's activities with the health center staff. Note any problems that you can help correct.
4. Check the Patient Register. Note the variety of problems the student is caring for.
5. Observe the student as he examines patients. Make recommendations for improvement.
6. Observe the student as he performs the skills listed in the Community Phase Log. Evaluate his performance and record it in the log.
7. Discuss next week's schedule. Plan to check his management, community health, or clinical skills.

Session 7

Team Building

OBJECTIVES

1. Describe the role of supervisors and the training staff in building a strong health center team.
2. Describe the characteristics of a team and the importance of each.
3. Prepare supervisors and training staff members to build a health team.

Every health center has some team structure or framework for its activities. When a mid-level health worker trainee goes to a health center for the community phase of his activities, he will have to work within an established system. He must coordinate his activities with those of the health center. The health center group must be willing to coordinate its activities with the mid-level health worker's. As a supervisor, you must encourage this team cooperation. Review the following aspects of team cooperation.

Understand Team and Personal Objectives

A health center team sets its objectives by relating district and national health care policies and goals to a specific health center activity. Health center workers must know their team's objectives and must cooperate to achieve them. A team objective for the community phase of a mid-level health worker's training is to support and assist the student in successfully completing all his requirements.

Each member of a health center team also has his personal objectives. These personal objectives might be to develop new skills, to improve a skill, to teach new skills to a community health worker, or anything that supports the team objectives. A supervisor's personal objectives for this program will relate to the successful training of a mid-level health worker and development of his own supervisory skills. The mid-level health worker student will have personal objectives that relate to the successful completion of all his community phase requirements and all other requirements necessary for graduation.

As a supervisor, you should understand the national, district, and health center objectives, and the personal objectives for each health worker. You must also recognize and correct objectives that do not support the greater objectives of the national health care program.

Make Roles and Responsibilities Clear

Each member of a health team must know his own and other team members' roles and responsibilities. As a supervisor, you must make these clear. A health center team usually includes an auxiliary nurse, a midwife, a cleaner, a guard, and a mid-level health worker.

The responsibilities of each are given in the Health Center Operations manual. Ask a training staff member to review these for you, if you are not already familiar with them.

Make the roles and responsibilities of the health center team and the student mid-level health worker clear. Roles and responsibilities that are not well defined may cause confusion. Avoid the confusion by spelling out roles and responsibilities early.

Make Rules and Policies Clear

Make sure that all health team members understand ministry of health rules and policies. These national rules and policies ensure that all workers are treated equally. Health centers may also have rules and policies unique to their situation.

Mid-level health worker students have studied the ministry of health rules and regulations, but not those of the health centers. As a supervisor, you should make the student aware of the health center's rules and policies and resolve any conflicts between them and the student's community phase requirements.

Establish a Fair and Friendly Work Environment

Members of a health center team should work together on fair and friendly terms. Whenever a change is made in the structure of the team, its members' relationships change. For example, the introduction of a student mid-level health worker may affect others' roles and responsibilities. As a supervisor, you should make sure the new relationships are fair to all and that the changes do not lead to conflicts. If conflicts should arise, resolve them.

Use a Participative Leadership Style

Set a good example for the student and the health team when you visit a health center. Use a participative leadership style whenever you can. Discuss plans, ask for feedback, listen to others' ideas, and involve the team in team decisions.

ACTIVITIES

Group Discussion

1. From your own experience, describe a group that did not work as a team. Explain why the team members did not work well together.
2. Describe another group that did work well as a team. Explain why the team members worked well together.

Role-Play

Assume that you are the supervisor of a health center where an auxiliary nurse, a cleaner, and a student mid-level health worker are assigned. This is the first day that the student will be working at the health center. You want to ensure that a team effort develops.

1. Choose people to take the role of health center supervisor, auxiliary nurse, cleaner, and student mid-level health worker.
2. Give the health center supervisor five minutes to prepare his team-building activities.
3. Role-play the situation of a health center supervisor starting the team-building process. Let the role-play continue for ten minutes.
4. After ten minutes, stop the role-play. Discuss whether the health center supervisor successfully started toward building a team. Make any suggestions and comments. Repeat the role-play, incorporating any suggestions for improving it.

Session 8

Motivation

OBJECTIVES

1. Describe motivation.
2. Describe why supervisors and training staff members must motivate student mid-level health workers during the community phase of their training.
3. Describe how supervisors and training staff members might motivate student mid-level health workers during the community phase of training.

Supervisors must motivate student mid-level health workers so they will perform their work with enthusiasm and achieve high standards of performance. As a supervisor, you must guide and encourage students. You must make assignments fair to both the students and the health center team. You must support students in their dealings with the ministry of health and with community leaders. In addition, you must:

Set a good example
Reward good work and help correct poor work
Make students feel they are doing an important job
Make students feel they are taking part in team decisions
Give students new knowledge, skills, and responsibilities

As you review each of these five ways of motivating people, think of how you might apply them during the student mid-level health workers' community phase of training

Set a Good Example
You must be motivated before you can motivate others. Exhibit a positive attitude when you work with the student mid-level health workers.

Reward Good Work and Help Correct Poor Work
Praise and encouragement, when they are deserved, are two of the very best ways to motivate students. You will have many opportunities to evaluate students' performance. When you do, remember to praise what students do well, as you correct what needs improvement.

Make Students Feel They Are Doing an Important Job
Make sure the student mid-level health workers know how the work they have been assigned contributes to the district and national health care goals. Make sure students feel their work is important in meeting those goals.

Make Students Feel They Are Taking Part in Team Decisions

Include the student mid-level health workers in planning and scheduling their activities. Listen to their suggestions and use them whenever possible. The students will take satisfaction in knowing that they will be consulted and that their suggestions and reactions will be considered before decisions are made.

Give Students New Knowledge, Skills, and Responsibilities

Students in the community phase of their training will already be motivated to complete the requirements of their course. Give them as much opportunity as possible to test the skills they have already practiced and to master new skills. Help the students resolve any problems as they occur. Do not let them become frustrated by struggling with a problem they are unable to solve. Be a resource to whom the students may turn when they encounter a problem they cannot solve.

The students will look to you as an example of how they ought to behave and how they ought to carry out their work. They will turn to you when they need assistance. Make yourself available to the students, and be prepared to help them.

You should also try to understand the student mid-level health workers' position. They may not perform well if they are overwhelmed by their work or if they remain unchallenged by it. Help them find a middle course. To understand the student mid-level health workers, ask yourself these questions:

Do the students have a clear idea of their community phase responsibilities?

Are the community phase requirements realistic, given the students' assignment?

Do the skills which the students must perform relate to the work they will be doing after they complete their training?

Have the students been assigned too many tasks? Can some be combined?

Have the students been assigned too few tasks? Should some be added?

Are relationships among people in the community and the health center conducive to the students' training?

Are the students receiving enough feedback?

Do the students have enough independence and self-confidence to make decisions on their own?

Have the students received enough training to be able to complete their community phase requirements?

ACTIVITY

Role-Play Situation

A student mid-level health worker has worked at a health center for one month during the community phase of his training. He did well in the module phase of his training and was enthusiastic when he began his community phase.

The health center supervisor and the student mid-level health worker scheduled activities at the start of the community phase. They agreed on a time and work plan. The supervisor planned to visit the student every week to check on his progress.

At the first visit, the mid-level health worker seemed happy. He was getting along with the other members of the health center team. He was keeping to his schedule. The second week also went well. On the third week, however, the supervisor noticed that the student did not seem happy. He examined scheduled patients, but he did not seem interested in completing any of the other tasks on the schedule.

On this fourth visit, the situation remains the same. The student is not following the schedule as planned.

Role-Play Instructions

1. Choose someone who will play the student's role, and someone who will play the supervisor's role.
2. The person who role-plays the student should leave the room for five minutes to write down reasons why he is unhappy and why he has not been able to keep to his schedule.
3. The person who role-plays the supervisor should also leave the room for five minutes to decide how he will approach the mid-level health worker about this problem and what he will do to try to solve the problem.
4. When the student and the supervisor return, they role-play the meeting in front of the group.
5. With the group, discuss the role-play.

Session 9

Evaluation

OBJECTIVE

Prepare supervisors and training staff to evaluate the student mid-level health workers' performance during the community phase of their training program.

When you evaluate a student, you determine how closely he comes to achieving the objectives of the community phase. An evaluation helps the student discover his strengths and weaknesses. A thorough evaluation will motivate a student to build on his strengths and strengthen his weaknesses.

Evaluations must be frequent so the student will know how he is performing. If remediation is necessary, frequent evaluations allow the student and the supervisor time to correct the problem.

Review the Community Phase Log with members of the training staff. Learn how to rate the student's performance and how to mark your rating in the log.

ACTIVITY

PROGRAM MANAGER'S NOTE

Copies of the Community Phase Log were distributed to orientation program participants during Session 2.

Discuss the use of the Community Phase Log with training staff members and supervisors.

Session 10

Training

OBJECTIVES

1. List and discuss the fundamentals of teaching.
2. Prepare supervisors to teach students a new skill.

As a supervisor, you will be called upon to teach students new skills or review skills previously learned. You can apply the following fundamentals of teaching to all your training situations.

Explain Why the Student Must Learn a Skill
If the student does not understand why he must learn a skill, he will not want to. Therefore, help the student understand the usefulness of learning a skill before you begin to teach it.

Give the Student an Opportunity to Learn in a Way He Understands
Every student has different abilities and talents. Students learn in different ways and at different speeds. What you teach may be easy for one student, but difficult for another. If a student has a hard time learning a skill one way, teach it another way. Vary the learning situation and the student's perspective of the problem.

Teach New Skills One Step at a Time
Students should start learning a skill at the easiest point. After they have mastered the first step, they should continue to more difficult steps until they have mastered the skill. Students learn skills better when they take them step-by-step. They understand them more completely that way. Also, they are motivated by successfully completing manageable steps.

Allow the Student to Practice His New Skill
Few students will learn a new skill so quickly that they need only one session to master it. Most students need to practice the same skill many times. Ask the student to practice the skill on his own, and then while you observe him. By observing the student, you can find out whether he has mastered the skill.

Give the Student Feedback
When a student performs a skill correctly, encourage him. When he does something wrong, tell him. If he is not told he is performing incorrectly, he may practice the wrong action.

Prepare the Student to Learn
The desire and motivation to learn must come from the student. Find out whether he is willing to learn and whether he understands the importance of learning the skill.

Let the Student Perform the Skill

Let the student perform each step of a skill. So long as he performs the steps correctly, let him continue. If he makes a mistake, correct him, and then have him proceed. Most important, be patient.

Let the Student Perform the Skill Alone

When you are certain that the student knows the basic steps of a skill, let him practice it without you. Return later to check on his performance.

Activities

Group Discussion

Use these questions to begin a discussion about training.

1. What problems may supervisors have when they start to train students at the health centers?
2. What more will the supervisor need to know to teach skills to a student at the health center?

Role-Play

Choose one person to take the role of a supervisor and one person to take the role of a student. Select a simple skill that the supervisor can teach the student. For example, the supervisor might explain how to take a pulse rate or how to take a temperature. Give the supervisor ten minutes to prepare. After he teaches the skill, discuss how well the skill was taught.

Session 11

Management of Support Systems and the Health Center

OBJECTIVES

1. Outline the supervisor's role in helping student mid-level health workers manage a health center's support systems during the community phase of training.
2. Review the supervisor's role in assisting student mid-level health workers to manage a health center's support systems during the community phase of training.
3. List and discuss difficulties that might arise in managing any of the support systems of a health center.
4. Determine what supervisors and training staff members can do during the orientation program to facilitate the management of a health center's support systems.

A health center needs drugs, medical supplies, general supplies, transportation, communication, personnel, money, facilities and equipment maintenance, and health information. Health workers need to manage these resources efficiently to get the best use from them. The student mid-level health worker will practice managing these resources during the community phase by learning how to obtain, maintain, and control them. He will also practice how to organize and operate a health center. The student will need frequent assistance managing the resources of the health center. As a supervisor, you will be asked to help the student manage the health center and its support systems.

Drugs and Medical Supplies

The student will need to order drugs and medical supplies and maintain them. You will be responsible for evaluating his work. You will also be responsible for helping the student obtain the drugs and medical supplies he has ordered.

General Supplies

The student will maintain the general supplies necessary to run the health center. To do so, he will need to order them either from the government supply system or from local businesses. You must evaluate whether the student adequately orders and maintains the general supplies. You should also help him obtain these supplies, if necessary.

You and the student need to agree on what items can be purchased

locally, when and how often supplies should be purchased, and what procedure to follow when buying items locally.

If a health center's supply system is already working well, make the student responsible for maintaining the health center stocks. If the ordering system is not working well, help the student work to improve it.

Transportation
Each health center will have its own transportation system. If the transportation system is adequate, see that the student uses it appropriately. If the health center does not have an adequate transportation system, the student will need help meeting his own transportation needs and those of the health center team. He will look to his supervisor for assistance.

Communication
The student may need your assistance in developing a communication plan. He may need to contact you, a hospital, or a community health worker.

Personnel
People are the most important resource that a student will work with. Sometimes you can get along without enough money, equipment, or supplies, but you cannot get along without people. The student must learn how to work with people. Help him develop and maintain a team spirit.

Finance
The ministry of health's financial system includes laws, rules, regulations, procedures, and forms that the student must learn to work with. He must also keep track of money collected at the health center and participate in making annual estimates. Help him manage this system.

Maintenance of Facilities and Equipment
Students will work with facilities and equipment that vary in quality and condition. The student will be expected to protect and maintain them, repair damaged equipment, and replace worn parts. This may require innovation and creativity. The student will look to you for guidance.

Health Information
The collection, recording, and reporting of health information is an essential part of the student's responsibility. Help the student provide information about health conditions in a community to district officials.

Managing the Health Center
The student must be concerned with the function and layout of the health center, the use of the health center team, the organization of records, and the correct handing-over procedures.

Activities

PROGRAM MANAGER'S NOTE

Provide pencils and notebook paper for supervisors and training staff members.

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1. Supervisors and training staff members should review the support systems at their assigned health centers.
2. Supervisors and training staff members next discuss how these support systems are managed and any potential difficulties.
3. Supervisors and training staff members discuss a plan for managing support systems during the community phase of training.

Session 12

Handling Conflicts

OBJECTIVES

1. Determine how conflicts develop.
2. Review how supervisors might handle conflicts when they occur.

Misunderstandings and ill feelings commonly occur. As a supervisor, you will be in a unique position to help resolve any misunderstandings or conflicts that might occur among students, the health center staff, or the training staff. Resolving misunderstandings and conflicts often takes a great deal of insight and patience.

First, realize that disagreements will happen. Do not be surprised when a conflict does occur. No two people will always have the same point of view or look at a situation in the same way.

When a disagreement does occur, acknowledge it right away. The conflict is unlikely to go away if you deny it or forget about it. If the conflict is ignored, it may later lead to worse problems. Dealing with a conflict as soon as possible might defuse the situation.

When handling a conflict, the supervisor should follow these steps.

Define the Conflict
The supervisor should find out from the people involved the nature of their complaint.

Be a Good Listener
The ability to listen means more than just hearing what the person has to say. Listening means that you hear the words, plus understand how the person feels. When you hear and understand, you have a better chance of helping those involved deal with their conflict.

Look at All Sides of the Conflict
Problems not associated with work may be causing the conflict. These may be personal problems at home, work, or elsewhere that do not have a direct bearing on the conflict. These outside forces may cause conflict in what would otherwise be a normal situation.

Be Fair
The conflict may have several sides. Help the people involved come to a mutually agreeable solution. Try to avoid a situation in which one side wins and the other loses.

Activities

Group Discussion

1. Have someone in the group describe a situation in which a conflict was not well handled. Discuss how the situation could have been improved.
2. Have someone in the group describe a situation in which a conflict was well handled. Discuss why the situation was well handled.

Role-Play Situation

A student mid-level health worker who has been assigned to a health center for the community phase of his training must work with a nurse and a cleaner. In this case, a conflict develops almost immediately. The nurse and the cleaner refuse to cooperate with the student. They say they have been working at the health center for years and they resent the student coming in with new ideas, trying to change their established procedures. The student wants to try some of the ideas he has learned in training. But finding resistance, he withdraws.

The health center supervisor must resolve the conflict.

Role-Play Instructions

1. Choose persons to role-play the student mid-level health worker, the cleaner, the nurse, and the health center supervisor.
2. The health center supervisor leaves the room.
3. The cleaner and registered nurse take five minutes to list the grievances that they have against the student.
4. The student makes a list of his grievances.
5. The health center supervisor still remains outside of the room while the student mid-level health worker, cleaner, and registered nurse meet for five minutes to talk about their grievances. They then decide to talk to the health center supervisor. One of them asks the health center supervisor to come in.
6. The health center supervisor helps the staff deal with the conflict.

Discussion

1. Did the health center supervisor listen to all sides to understand the dispute?
2. Did the health center supervisor listen to the staff members?
3. What did you think about the resolution of the conflict?

Session 13

Summary of Supervision for Students

OBJECTIVES

1. List topics already covered during this orientation program that would be of interest to students.
2. Prepare and give a presentation on the topics for students.

The next session will include the mid-level health workers. Many subjects that will affect them have been discussed. Select a spokesman who can tell the students what has occurred at the program to date.

ACTIVITIES

As a group, determine which topics already discussed during this orientation program would interest student mid-level health workers. Select a member of the group to prepare a report on the topics selected.

The spokesman should prepare a thirty-five to forty-five minute presentation on the topics chosen by the group. After giving his report, the spokesman should lead a question and answer period.

Part II

Supervisors
Training Staff
Students

PROGRAM MANAGER'S NOTES

1. Tell students to bring the following reference manuals to the fourth day of the Community Phase Orientation Program:
   - Health Center Operations
   - Formulary
   - Diagnostic and Patient Care Guides
   - Patient Care Procedures
   - Community Health
2. Reproduce one copy of Part II for each student, supervisor, and training staff member.
3. Reproduce one copy of the following for each student:
   - Community Phase Requirements
   - Community Phase Assignment List
   - Community Phase Log

Welcome to Students, Supervisors, and Training Staff

Welcome to the second part of the Community Phase Orientation Program. We have a full schedule of activities to complete, but before we begin, I would like to welcome the students who are joining us for these final two days of the program.

You students who have completed the module phase of your mid-level health worker training will soon begin the practical application of the knowledge and skills you have learned. People in villages and communities throughout our country will come to rely on you for medical and community health assistance when they need it. You, in turn, will come to rely on a health center team and your supervisor to help you provide the care and assistance requested. This program will help you prepare for your community phase experience.

For the past two days, supervisors and members of the training staff have worked together to:

- Describe the training program for mid-level health workers
- Define the requirements of the community phase
- Describe the characteristics of health centers where students will work during the community phase
- Discuss the roles and responsibilities of the health center supervisors, training staff, and students
- Discuss and use the community phase evaluation tools
- Use supervisory techniques
- Suggest a schedule that students might follow during the first week of the community phase
- Describe the Community Health manual, Health Center Operations manual, Diagnostic and Patient Care Guides, Formulary, and Patient Care Procedures

Now we ask for your participation to establish a working relationship with your supervisors and to discuss your responsibilities and requirements so they are clear and understood by all. We will begin by reviewing the work already accomplished in this program. Please ask questions and feel free to add your comments to the discussion sessions. Thank you.

Session 14

Description of the Community Phase

OBJECTIVE

Describe the purpose of the community phase of training.

ACTIVITY

A member of the training staff will briefly describe the purpose of the community phase of training. After his report, he will answer questions.

Session 15

Report on Previous Two Days' Activities

OBJECTIVE

Review for student mid-level health workers the topics and activities already covered during the orientation program.

ACTIVITY

A spokesman chosen at the end of Session 13 will report on the activities of the previous two days. Then he will lead a discussion about the report and answer questions.

Session 16

Community Phase Requirements, Schedule, and Health Center Assignments

OBJECTIVES

1. Report on requirements of the community phase of the mid-level health worker training program.
2. Report on the community phase schedule.
3. Assign student mid-level health workers to health centers.

ACTIVITIES

PROGRAM MANAGER'S NOTE

Select members of the training staff to give the reports called for in the following activities. Provide a chalkboard or flipchart, if necessary.

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1. A member of the training staff will report on the requirements of the community phase. After the report, he will answer questions.
2. A member of the training staff will report on the community phase schedule. After the report, he will answer questions.
3. A member of the training staff will announce the health center assignments.

Session 17

Using the Community Phase Log

OBJECTIVE

Introduce and explain the use of the Community Phase Log.

During the community phase, the student will be evaluated on his performance of community health, management, and community health worker training and support skills. The supervisor and the training staff will use the Community Phase Log to evaluate the student's performance. The student will be asked to perform a skill, and the supervisor will observe the student. The supervisor will then determine how well the student performed the skill and he will mark a rating in the appropriate box. He will also write any comments.

A training staff representative or a supervisor will explain how the Community Phase Logs will be used. Ask any questions about the use of the logs, the requirements, or the rating system now.

ACTIVITY

PROGRAM MANAGER'S NOTE

Students should already have copies of the Community Phase Log. Supervisors and members of the training staff should use copies of the log distributed for Session 2 of the orientation program. Select a member of the training staff to explain how the logs will be used to evaluate students' skills.

A member of the training staff will describe how the Community Phase Log will be used to evaluate students' skills. Ask any questions you have about the use of the logs, the requirements of the community phase, or the rating system now.

Session 18

Developing the Community Phase Schedule

OBJECTIVE

Plan student mid-level health workers' first week's activities at a health center.

To complete the community phase requirements within a given time, students must schedule their activities. Students will not be able to schedule all their activities now, but they can make plans for their first week at the health center. Students and their supervisors will complete their planning at the health center.

ACTIVITIES

PROGRAM MANAGER'S NOTE

Make place cards for each group and set the cards on tables. You might identify the groups by the name of the health center to which each one has been assigned or the name of the supervisor or training staff representative, whichever presents the least conflicts.

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1. Check the health center assignment list for the names of the students, supervisors, and training staff representatives with whom you will be working. Join these people at a table set up for you.
2. One member of each group should tell the students about the number of days per week they will spend in the health center and in the community. Explain how and why the decision was made. Ask the students how they feel about the number of days allotted for health center and community activities.
3. Show students the list of activities to which supervisors and training staff members gave highest priority. Ask for students' comments and questions.
   a. Discuss the list with the students.
   b. Decide what activities students will perform during their first week at the health center.
   c. Decide the order in which the activities should be performed.
   d. Write the activities on a schedule. A form is provided in this manual.
   e. Discuss how often the supervisor will visit the health center. Include the supervisory visit on the first week's schedule.

FIRST WEEK'S SCHEDULE OF COMMUNITY PHASE ACTIVITIES

DAY 1	DAY 2	DAY 3
DAY 4	DAY 5	

Session 19

Team Building

OBJECTIVES

1. List members of the health teams at the health centers to which student mid-level health workers have been assigned. Discuss their strengths and weaknesses.
2. Review student and supervisor responsibilities for working with the health team.

ACTIVITY

For this activity, each supervisor should meet with the students assigned to the health centers under his supervision. Supervisors and students should start thinking as a team, and together review a list of other team members with whom they will be working. The list might include the names of these people:

Mid-level health worker
Community health worker
Auxiliary nurse
Midwife
Cleaner
District health officer
District public health nurse
District health inspector
District hospital administrator
Guard

Students and supervisors might also discuss their responsibilities for:

Communicating with team members
Motivating and supporting team members
Disciplining team members
Training team members
Resolving conflicts among team members

Session 20

Health Center Resources

OBJECTIVE

Set responsibilities for managing support systems at health centers during mid-level health workers' community phase of training.

ACTIVITY

Because students will have to manage many health center resources during the community phase, they should meet with their supervisor to discuss how the supervisor can assist in the management process.

The supervisor should report on the status of each resource and any problems that might affect it. The student and the supervisor should discuss the problem and possible solution. Resources may include:

Health center facilities
Drugs and medical supplies
General supplies
Transportation
Communication
Personnel
Finance
Equipment
Health information

Session 21

Using References

Objective

Describe the five mid-level health worker references and how they should be used.

Activity

The student will use five references during the community phase and later when he is assigned to a health center. The five references are the Formulary, the Diagnostic and Patient Care Guides, the Patient Care Procedures, the Health Center Operations manual, and the Community Health manual. For this activity, students should describe the content of each reference to supervisors and discuss how the references will be used.

Formulary

The Formulary contains the information students and mid-level health workers will need to dispense drugs safely and effectively. It is divided into two sections. The first section includes information about how to take a drug history, how to calculate drug dosages, the importance of giving instructions to the patient, and how to label containers of drugs before the student or mid-level health worker dispenses them. The second section includes information about specific drugs. The drugs are listed according to categories of use. Each drug entry includes a description including the form in which the drug is supplied, a statement about the conditions for which the drug can be used, doses, side effects, warnings, storage information, and patient instructions.

Diagnostic and Patient Care Guides

The Diagnostic and Patient Care Guides reference is based on the diseases and conditions that are described in the mid-level health worker training modules. The most characteristic symptoms and signs of each condition are listed. The Diagnostic and Patient Care Guides provides detailed instructions for the care of each of the diseases and conditions in the training modules. The diseases and conditions are listed in nearly the same order as they appear in the training modules. The Diagnostic and Patient Care Guides reference contains an alphabetical listing of diseases and conditions.

Patient Care Procedures

The Patient Care Procedures are step-by-step descriptions of specific procedures. Examples of procedures are those for starting an intravenous infusion and removing a foreign body from the eye.

Health Center Operations

The Health Center Operations manual contains the official policies, procedures, and forms used in the primary health care system. In addition to sections on the eight management and support systems, it contains sections on facility operations, primary health care organization and functions, evaluation and planning systems, and change notices and amendments.

Community Health

The Community Health manual supplements the Identifying the Preventive Health Needs of the Community module and the Meeting the Preventive Health Needs of the Community module. This manual is divided into five sections:

Resources and Information for Planning and Carrying Out Community Health Activities
The Health and Care of Mothers and Children
Nutrition
Environmental Health
Community Health Survey Report

Each section contains charts, tables, schedules, checklists, step-by-step instructions, and simple lists pertinent to the subject or area in that section.

The MEDEX Primary Health Care Series
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